

**City Farming and Sustainable Urban Development:  
A Case Study of Seoul, South Korea**

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This thesis is submitted in fulfilment of the Degree of Doctor of Philosophy  
in Town and Country Planning

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## Abstract

The aims of the thesis are to find out the causal mechanism of city farming and to examine the hypothesis that city farming conforms to the conditions of sustainable urban development. As far as methodology is concerned, the thesis employs a realist approach. In the realist methodology, to understand *what* is as significant as to know *why*. Therefore, the thesis pays much attention to the conceptualisation of city farming and sustainable urban development.

Vacant land in Seoul, the precondition of city farming, occurred basically through the natural process of urban expansion, but most importantly due to the growth-oriented land development policies. City farming is at the moment an opportunistic and illegal use of vacant land under the negligence of planning control. Led by a leading agent, the city farmers on each case site have colonised vacant land through the reality and practice learning. However, city farmers' egoistic action has an unintended consequence of making vacant land an unofficial open space. The thesis also identifies that city farming on the case sites conforms to the elements of sustainable urban development. The elements developed in the thesis are future, nature, participation, equity, and self-reliance. The thesis suggests three criteria for each element with which the hypothesis is examined.

The thesis concludes that the modern planning system in South Korea has failed to take into consideration the socio-economic and environmental aspects of city farming. It, therefore, suggests that future planning system promote activities or projects which comply with the principles of sustainable urban development. Although the modern planning system in Seoul has failed to cope with the rapid land use change shown in the case studies, the thesis proposes that the planner's role has become more important than ever before in this age of environmental concerns.

## Abbreviations

CF	City Farming
DOE	Department of the Environment
ECOSOC	United Nations Economic and Social Council
EIA	Environmental Impact Assessment
FAO	Food and Agricultural Organisation
GNP	Gross National Product
IUCN	International Union for Conservation of Nature and Natural Resources
IUPN	International Union for the Protection of Nature
LDC	Less Developed Country
LRP	Land Readjustment Project
MOC	Ministry of Construction
MOHA	Ministry of Home Affairs
NGO	Non-Governmental Organisation
CNLDPA	Comprehensive National Land Development Planning Act
CNLDP	Comprehensive National Land Development Plan
SMA	Seoul Metropolitan Area
SMARMP	Seoul Metropolitan Area Reorganisation Master Plan
SUD	Sustainable Urban Development
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VIP	Vacant Industrial Premises
VUL	Vacant Urban Land
WCED	World Commission on Environment and Development
WCS	World Conservation Strategy
WWF	World Wildlife Fund
YWCA	Young Women's Christian Association

# Chapter 1

## *Introduction*

### 1.1 SUBJECT OF RESEARCH

City farming has so far been a relatively unexplored subject within urban planning research, and it has often been taken just as a subject of landscape architecture (Hough 1984). But there is growing interest in the subject in terms of urban greening (Nicholson-Lord 1987; Furedy 1990), and also in relation to sustainable urban development (Elkin et al. 1991; Hardoy, Mitlin, and Satterthwaite 1992). The research into city farming on vacant land in Seoul will further reveal a number of other interesting aspects of urban spatial changes and planning processes of the city.

As simple as city farming might at first seem, it has a wide variety of dimensions such as economy, society, politics, and the environment. However, this social activity can only be properly understood through the most relevant conceptualisation process, that is, by picking up one aspect of this concrete phenomenon. This thesis tries to make it clear that a profound restructuring, happening in every aspect of urban life in Seoul, can only be fully understood through the various dimensions concerned. City farming in Seoul seems to be one of these transformations: city farmers colonise the neglected public or private space in the city "as people and firms defend their locales from other people and firms" (Healey 1990).

Old problems dealt with in the field of urban land use planning are now seen in a new light by considering seemingly simple issues. At present, city farming in Seoul is an illegal practice, a do-it-yourself response to the city's inability to provide adequate leisure or cultural space for its citizens, particularly for the elderly. If city farming is an acceptable activity as a solution to the lack of leisure space and a useful way of managing vacant land, albeit temporarily, and city farming can be developed as a reliable and feasible urban land use practice as seen in many cities of other countries, there is no reason why it should not be promoted in Seoul, South Korea.

One of the best ways to understand the complex nature of cities is to examine the most ordinary scenes and events without prejudice in order to uncover the mechanisms and structures behind the phenomena. With the correct diagnosis, a proper treatment can be suggested. City farming study can be said to be a way of probing the real world.

## **1.2 BACKGROUND OF RESEARCH**

The original idea of the research into city farming occurred to the author when he saw by chance a group of elderly women cultivating a small patch of vacant land in a highly urbanised area of Seoul in 1987.<sup>1</sup> As Harvey (1969) mentions, the desire of explanation comes from the reaction of surprise to some experience. First of all, the author wondered why the people cultivated there under such unfavourable conditions. The author reasoned at the time that even if it could be a beneficial use of vacant land, city farming must be a symptom of the failure of modern urban planning at least in Seoul, South Korea. But as the thesis will reveal, the meaning of city farming and its implications are by no means simple to comprehend.

The urban forms that the citizens of Seoul once longed for, skyscrapers and highways, the symbols of modernisation, are now not to their taste. Even urban trees, once seen as purely ornamental, are now taken to be an important element for the quality of the city's environment. Although the failure of planning is not the sole reason for this situation and planning alone cannot solve the complicated urban problems, there is no doubt that the Korean planning system itself has contributed to the malfunctioning of the urban system and the environmental degradation of Seoul. In fact, a series of growth-oriented development plans in Seoul since the early 1960s has hastened unnecessary development, worsening the environmental conditions of the city. The urban malaise found in Seoul these days is the dark side of excessive growth promoted, as Capra (1982) argues in *The Turning Point*, by the Cartesian-Newtonian world view which still dominates the world. In pursuing economic growth, central and local government of South Korea have failed to reflect the value of the environment.

Korean planners still believe that planning should be nothing more than a controlled development through land use restrictions without any social and environmental consideration. Despite the growing environmental concerns worldwide, the Korean urban planning system is still oriented to the physical growth of urban space with some tools of control such as zoning and master plans that are heavily criticised nowadays (Devas and Rakodi 1993) and have increasingly become inappropriate for securing the quality of life for the citizens of Seoul. Under these circumstances, the citizens as well as the planners of Seoul are suspicious of the present system. There is a growing recognition that the present planning system is simply unsustainable.

### 1.3 SIGNIFICANCE OF RESEARCH

It is not only global environments but also urban ones that have been increasingly degraded during the last few decades. Even if growing evidence shows that the present socio-economic structure is the main cause, and even if politicians are well aware that there is an intimate relationship between economy and environment, economic policy has remained largely unchanged and few measures have been taken to tackle the environmental crisis. It seems that environmental protection cannot be achieved without sound economic development, and vice versa. This is the essence of the concept of sustainable development.

But most of the debate on sustainable development is conducted in a global context. Although there is a growing body of literature about sustainable development, a small proportion of the literature is concerned with the concept in the urban context. With urbanisation rates high worldwide and all sorts of pollution exacerbated, urban areas must be the essential locus of the debate on sustainable development. The thesis thus, through the case studies of city farming, attempts to situate properly the debate over sustainable development at the local level.

Environmental concern has recently become one of the main issues in Korean urban planning. However, there is a dilemma that South Korea, still a developing country, should pursue economic growth as well as environmental conservation. Therefore sustainable development appears to be the most attractive development strategy for the policy-makers in the central and local government of South Korea. Although there has been a lot of literature on the definitions and interpretations of sustainable development (see Chapter 3 and particularly Notes 2 and 3 in the chapter), practical ways of achieving



sustainable development have not yet been seriously studied. This new research into city farming on vacant land in Seoul tries to fill this gap between theory and practice.

Many have pointed out the desirability of city farming (Hough 1984; Spirn 1984; Nicholson-Lord 1987; Porritt 1987; Gordon 1990), but few explained why it was so, let alone why it happened. Although there is a master's dissertation about city farming on vacant land in a new town of South Korea from the point of view of landscape architect (Choi 1988), this thesis is the first research into the subject in Seoul from the planner's point of view. The thesis will examine those questions mentioned above through a fresh conceptualisation of city farming and sustainable urban development.

## **1.4 AIMS OF RESEARCH**

The thesis is basically a critique of Korean modern urban planning. The fundamental aim of the research is to show how the modern planning system has failed in South Korea by examining city farming on vacant land in Seoul. It critically reviews the present planning system in South Korea and discusses the planning implications of the case study results in relation to the principles of sustainable urban development. One of the challenges is to examine the real meaning of sustainable development when it is employed at the urban level, that is, to direct the level of argument about sustainable development from the present level of the global to the local.

The major questions raised in the case studies are not about patterns and processes of city farming on vacant land in Seoul, but about the underlying structure and mechanism which really cause the phenomenon. Therefore the

objectives of the case studies are, firstly, to explain how and why city farming happened under the present socio-economic context and secondly, once a causal mechanism is identified, to test whether city farming conforms to the principles of sustainable urban development. In short, the foci of the research are:

firstly, to identify a relevant causal mechanism of city farming. The search for the causal mechanism of city farming in Seoul requires a clear understanding of what city farming is, and how and why vacant land, as a necessary condition for city farming in Seoul, occurred;

secondly, to identify the elements of sustainable urban development in the city farming activity.

## 1.5 HYPOTHESES

Based on the research aims mentioned above, two hypotheses are presented. Although these two hypotheses are not hierarchical, the examination of the first naturally leads to the consideration of the second.

The first hypothesis is that one of the causal mechanisms of city farming in Seoul is a social learning process. Through the practice and reality learning process, a marginalised group in a community, led by a leading agent, takes up city farming by colonising a site of vacant land, making the site a unique urban open space. In examining the hypothesis, this thesis also shows how the modern urban planning system in Seoul has failed to deal with this unexpected event.

The second hypothesis, an existential hypothesis, is that if there are elements of sustainable urban development, then these can be identified in city farming. In other words, if there are principles of sustainable urban development, then city

farming conforms to the principles. If city farming complies with the elements of sustainable urban development, then it is planners' task to promote this activity and others which conform to the conditions of sustainable urban development in order to achieve a sustainable urban future.

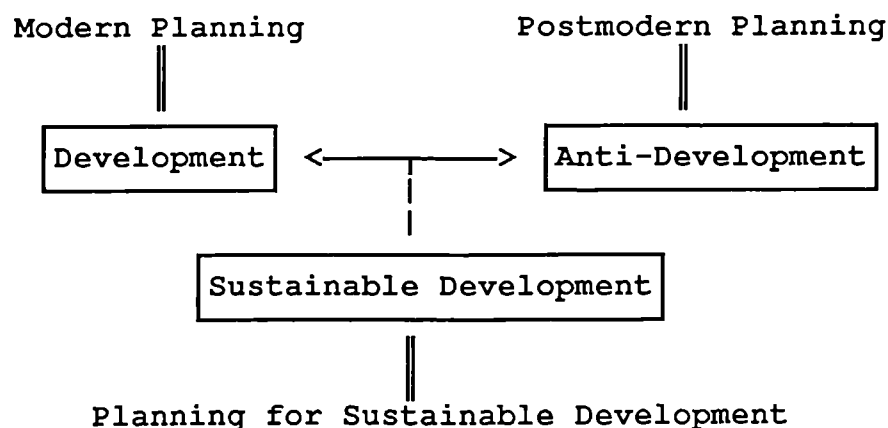
## 1.6 PERSPECTIVES

Modern planning was originally developed as a method for solving such urban problems as overcrowded housing and inadequate sanitary conditions (Lichfield and Darin-Drabkin 1980; Hall 1988). Then it has widened its scope to include, for example, recreation and countryside, transport, and pollution control. But whatever scope planning has, there is something in common throughout the variety of planning: planning is basically concerned with the exercise of development where development used to be defined as "changes in socio-economic structure which affect the economic growth of certain level of locality" (Lichfield and Darin-Drabkin 1980).

Recently, however, a strong critical viewpoint against the totalising ideology of modern planning has gained strength in the name of postmodern planning (Dear 1986; Beauregard 1989). It criticises the principle of instrumental rationality in planning theory and practice. It doubts the myth of the double equation: city = progress, development = well-being (Portoghesi 1983). But with its anti-development flavour,<sup>2</sup> postmodern thought seems to negate the validity of the existence of planning itself. Therefore there needs to be a synthesis of this conflict. If it is the case that modern planning has been promoted both as an exercise of community development and as a means of environmental management (Goodchild 1990), planning for sustainable development seems to give a viable solution to this conflict.

A compromise is needed to bring modernism and postmodernism together in a way which secures both tradition and change. Planning must go beyond the merely technical concerns of infrastructure or land use control to grapple with environmental issues and the management of public good. Planners, who are equipped with sufficient knowledge of broad social theories, must pay attention to the built environment, everyday life and its historical trends. To remedy the damaged urban environment, it is necessary to transform the fundamental system of urban planning. Thus the thesis considers sustainable urban development and its planning implications through the case studies of city farming.

The thesis recognises the position of sustainable development as a synthesis of the conflict between the totalising ideology of modern planning and the challenge of postmodern planning. Therefore in terms of development, planning systems can be categorised as Figure 1.1. The idea of sustainable development is more pragmatic rather than radical because it does not seek to abolish the whole social structure at once but tries to achieve its goal step by step taking account of present circumstances. The theory of sustainable urban development seems to have the possibility of being a theory *for* planning.<sup>3</sup>



**Figure 1.1** The Relationship among Modern Planning, Postmodern Planning and Sustainable Development Planning

Land use planning is the centre ground in planning (Dear 1986). Land in this case should be understood not just as a physical space but also as a socially produced space in which social relations under certain environmental conditions can be found. Moreover, society is not only open but also embodies the learning process which produces a continuous transformation. So a city farming site, for instance, can be understood as a social space produced through a social learning process. Therefore planning must be an integral part of environment and society, and this is the reason why planning must be multi-disciplinary. The flow of logic mentioned above can be shown in Figure 1.2.

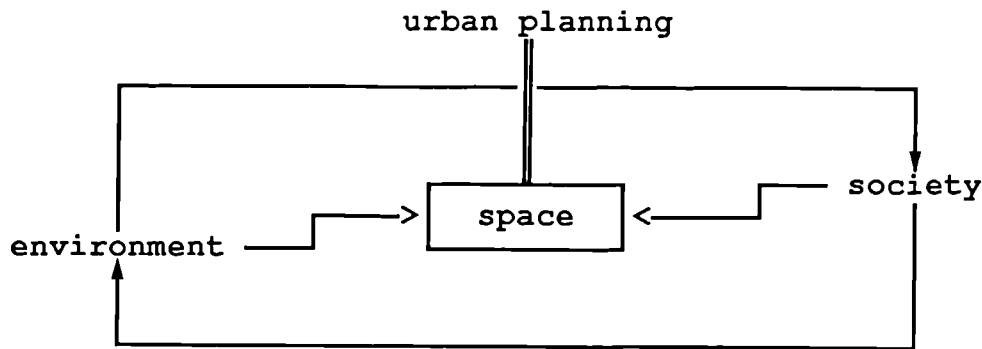


Figure 1.2 The Object of Urban Planning Research

## 1.7 OUTLINE OF THE THESIS

The outline of the thesis follows the aims, hypotheses and perspectives spelled out in this chapter. In the following chapters, a relevant research methodology is explained before the concept of sustainable urban development and the formulation of a model are discussed. After the description of the study area, the meaning and situation of city farming in Seoul and the production of another model are dealt with before the main case study analyses are made. Before the conclusion, the thesis considers the planning implications of the case study results.

Chapter 1 is an introduction where the research subject, background, significance, aims, hypotheses, and perspectives are outlined.

Chapter 2 is divided into three sections with each addressing realist methodology, case study design and research method. The first section explains the reason why a qualitative method is employed in this thesis before elucidating how the realist principles can be applied to practical research. The next section deals with the design of the case study procedure, clarifying the unit of analysis and the number of cases. In the final section, the practical method of data collection is discussed. It spells out the case study method including the procedure adopted for the pilot study. The models which will be dealt with in detail in the following chapters and the central questions which are the main foci in interviews are briefly introduced. The general framework of the interviews which address the items of social learning model and the elements of sustainable urban development is also explained.

Chapter 3 attempts to conceptualise sustainable urban development in a new way. It reviews the concept's historical backgrounds and definitions to reach the most appropriate definition of the concept for the research. Thereafter, it presents the main points of sustainable development together with the criticisms of the concept. It then proposes that the fundamental factors in sustainable urban development can provide a theoretical background for city farming research. Finally, it seeks to identify basic elements of sustainable urban development to produce a model of the "sustainable hut". The model clearly shows a set of conditions which is needed for urban development to be sustainable.

Chapter 4 describes socio-economic conditions, the administrative and planning systems, land policies, and environmental conditions of the study area, Seoul.

Because the planning and political systems of Korea are quite different from those of other countries, it is a prerequisite to make clear the general context of the study area. The examination of the conditions is necessary and important for the central research questions and other arguments in the case studies.

Chapter 5 deals with the definition, history and characteristics of city farming and develops a model on which the analysis of one of the hypotheses in this thesis is based. Here city farming is recognised as a universal phenomenon, with the context being different in each country. Then it explains the general features of vacant land in Seoul. The chapter examines the reasons for the occurrence and duration of vacant land in Seoul as vacant land is a necessary condition for city farming. It also estimates how much vacant land there is in Seoul by comparing different sources of statistics. The next section deals with city farming as a form of squatting. Here it is pointed out that people grow vegetables on vacant land to which they have no legal title, while nobody raises the question of illegality. The section also estimates how many city farmers there are in Seoul. After that, the characteristics of city farmers in Seoul are discussed. Finally, a social learning model is developed to find out a causal mechanism of city farming in the case studies.

Chapters 6 and 7 analyse the case studies. These chapters attempt to prove the hypotheses set out in Chapter 1. Chapter 6 examines the first hypothesis that the causal mechanism of city farming is a social learning process. The case studies focus on three case sites. Each case site includes five individual cases. The analysis of each case site is divided into three parts: site description, individual case analysis, and causal analysis. Chapter 7 analyses the second hypothesis that city farming conforms to the principles of sustainable urban development. It considers whether city farming on each case site has a certain type of the model of the "sustainable hut" developed in Chapter 3. The level of

discussion is divided into three: individual interviewees, case study sites as a whole, and cross-case comparisons.

Chapter 8 looks at the planning implications of the case studies. This chapter firstly considers the general criticisms of the modern planning system from the viewpoint of postmodern planning following the perspective suggested in Chapter 1. The next section relates the principles of sustainable urban development to the specific circumstances of land development processes and planning in Seoul. This chapter then extends its argument to a wider area of concerns whilst focusing on a new approach towards the planning system for sustainable urban development. Finally, this chapter proposes some recommendations about the practical aspects of city farming and a new planning approach.

Chapter 9 summarises the results and findings of the case studies. City farming in Seoul is done mostly by elderly people who have colonised the neglected space created in the process of rapid physical growth of Seoul. Through the practice and reality learning process, led by a leading agent, a site of vacant land has been transformed into a city farming site. The thesis identifies the elements of sustainable urban development in city farming in Seoul. However, city farming in the three case sites does not have the perfect form of the model of the "sustainable hut". According to the evaluation of this thesis, the urban planning system in Seoul has many deficiencies. The promotion of city farming should have a key role in a sustainable urban planning in contemporary Seoul. Therefore a number of key shifts will be needed in the Seoul planning system to promote city farming.



## Notes

- 1 The idea of city farming was briefly presented by the researcher in an article titled "A Study on the Urban Development in terms of Environmental Conservation towards the 21st Century" (Lee 1987).
- 2 For example, Habermas, who defends modernism as an unfinished emancipatory project, considers postmodernists as critics of economic growth (Habermas 1985; Boyne and Rattansi 1990). On the other hand, Krier, for example, seeks the active restoration and re-creation of classical urban values. This means either restoration of an older urban fabric and its rehabilitation to new uses, or the creation of new spaces that express the traditional visions (see Harvey 1989).
- 3 Bailey argues the possibility of social theory as a theory *for* planning (Bailey 1975). Ravetz (1986) sees theories *for* planning are different from theories *of* planning, where the former are theories used in planning.

# Chapter 2

## *Research Methodology*

### 2.1 INTRODUCTION

One of the objectives of this thesis is to find out the underlying structure and mechanism which cause city farming on vacant land in Seoul. In addition to the question of causal mechanism, another question takes the form of an "existential hypothesis" (see Harre 1970; Sayer 1992). The proper type of proposition for this hypothesis is that there are elements of sustainable urban development which can be identified in city farming. To examine these questions, the most appropriate methodology must be employed.

Methodology is the point at which method, theory, and epistemology unite in investigating specific objects within the social world (Harvey 1990). The method used here is case study where semi-structured interviews are employed to collect case evidence. The main theories suggested for the case study are two: the theory (or model) of social learning will be dealt with in Chapter 5, and the theory of sustainable urban development will be explained in detail in the next chapter. The epistemology applied here is realism. But from the realist's point of view, epistemology is meaningless without ontology, that is, epistemology should always presuppose ontology.

There have been some researchers who tried the realist approach. As recently as 1992 in a research project, Massey et al. followed a critical realist approach to

conceptualise the science park in the United Kingdom (Massey, Quintas, and Wield 1992). Allen and McDowell (1989) studied the structure of private rented housing provision in two local housing markets in inner London with a realist methodology. Their approach employed the combination of both intensive and extensive research designs. In 1983, Allen tried a realist approach in analysing property relations (Allen 1983). Sarre (1987) applied realist principles to a research project on ethnic housing. But most of the studies are still restricted to locality issues and few studies can be identified on other areas of urban problems.

The rest of this chapter is divided into three sections with each addressing realist methodology, case study design and research method. Section 2.2 sets out the integration of the three fundamental aspects of research components, that is, method, theory, and philosophy of science, placing emphasis on the explanation of realism. First of all, the reason why a qualitative method is employed in the thesis is explained before the notion of theory-laden facts is examined. After discussing the differences between positivism and realism, this section elucidates how realist principles can be applied to practical research. Section 2.3 deals with the design of the case study procedure, where the unit of analysis and the number of cases are clarified. Section 2.4 is about the practical method of data collection. This section spells out the case study method including the procedure of the pilot study. Then, the central questions which will be asked in interviews are discussed. Finally, the general framework of the semi-structured interviews about the items of social learning model and the elements of sustainable urban development is explained.

## 2.2 REALIST RESEARCH METHODOLOGY

This section discusses the practical application of the realist methodology to the thesis. Firstly, the reason why a qualitative method is employed in the thesis is explained before the notion of theory-laden facts is examined. Then, the differences between positivism and realism, and the basic principles of the realist approach are spelled out. Finally, it shows how the realist principles can be applied to the research on city farming before presenting the conceptual framework of the research. The methodology adopted in the thesis is then summed up as the interface between case study method, theories of social learning and sustainable urban development and realist philosophy of science.

### 2.2.1 Qualitative and Quantitative Methods

Qualitative research means a type of research that produces findings arrived at by means excluding those of statistical procedures or other means of quantification (Strauss and Corbin 1990). Sometimes the term "qualitative method" is not clear when data gathered through interviews and observation, which are qualitative methods, are later analysed statistically. This is in fact a case of quantifying the qualitative data. In sum, the qualitative method is a non-mathematical analytic procedure that results in findings derived from data gathered by a variety of means. The qualitative method is especially useful when it is used to discover the structure and mechanism which lie behind any phenomenon.

The use of mathematical models as an aid to causal explanation is problematic because as a language mathematics is "acausal" and "astructural" (Sayer 1992). Similarly, the concept of "variable" that is used in quantitative analysis is an indifferent one as regards causal explanation: variables can only register quantifiable change, not cause (Pawson 1989). Sayer (1992) even emphasises

that statistical methods are, despite their logical rigour, primitive tools as far as explanation is concerned.

The thesis uses both methods emphasising the qualitative method. For example, the quantitative method is applied to estimate the number of city farmers and the amount of vacant land in Seoul while the causal mechanism of city farming is considered using qualitative methods. In particular, in testing the existential hypothesis that there are elements of sustainable urban development in city farming, the case evidence will be analysed qualitatively.

### **2.2.2 Theory-laden Facts and Model Setting**

The data gathered in research are already preconceptualised. New concepts enable researchers to see new objects or different aspects of objects. So the research process is a disciplined way of testing theories by collecting data which support the conceptual relationship (Dixon et al. 1987). For Sayer (1992), theory can be classified into categorisation, conceptualisation, and hypothesis. All the three types of theory are relevant to the thesis in one way or another. Without conceptualisation, and thus failing a closure, argues Bhaskar (1989), any hypothesis of a causal mechanism is bound to be more or less arbitrary. Another kind of theory called model is also relevant: a model is a theory or a set of hypotheses which attempts to explain the connections and interrelationships between phenomena (Gilbert 1981).<sup>1</sup>

The thesis tries to form a picture of mechanisms which are responsible for city farming. This can be achieved by making an imagined model. Since enduring structures are at least as important a feature of nature as the flux of events, there is always the chance that some models can be supposed to be hypothetical mechanisms, and that these hypothetical mechanisms are identical with real

natural structures (Harre 1970). In short, a scientific explanation consists basically of depicting a relevant mechanism by means of a model.

This thesis sets up a social learning model for explaining the causal mechanism of city farming. The social learning model will be shown in Chapter 5. On the other hand, to test the existential hypothesis that there are elements of sustainable urban development in city farming, the thesis introduces an analogy of the "sustainable hut" as a model. This imagined model will be discussed in detail in the next chapter.

Theory matters because all facts are theory-laden. In other words, social phenomena are concept-dependent (Sayer 1992). Therefore theory and method are intertwined. Depending on the theories chosen or created, the most appropriate method can be used. But philosophy of science must be a prerequisite for any serious research.

### **2.2.3 Realist Approach**

It is frequently argued that the problems of positivism in the social sciences derive from the false methodological presuppositions (Holmwood and Stewart 1991). Some of the false paradigms are: there is no reality but phenomenon; philosophy is parasitic on the findings of science; natural and human sciences share common logical and methodological foundations; science should deal only with facts not values (Hughes 1990). Positivism is based on the belief that only observable phenomena and the relations between them are knowable and that explanation of the phenomena consists in showing that they are instances of the general laws or regularities. Positivists hold that, because all value judgements are subjective and unreliable, they do not constitute proper knowledge. Furthermore, because the aim of science for positivists is the

description and prediction of observable facts, the question why observed regularities should be as they are is not regarded as essential (Trigg 1985).

On the contrary, for the realists<sup>2</sup>, adequate causal explanations require the discovery both of regular relations between phenomenon, and of some kind of mechanism that links them (Keat and Urry 1982). The essence of realism lies in the proposition that there are objective connections in the nature of things, which may be identified as enduring mechanisms (Bhaskar 1978). In short, the realist view of explanation is: answers to "why" questions require answers to "how and what" questions because to explain why is partly to say how; and causal explanation itself requires descriptions (Keat and Urry 1982).

The fundamental points of the realist approach can be further spelled out as follows (see Sayer 1985; 1992):

Firstly, objects of study are many-sided or concrete; to be understood, the many constitutive elements isolated by abstractions need to be synthesised. The most crucial contribution of realism is that it requires the close inter-relation of abstract research, which considers structures and mechanisms, with concrete research, which explains particular situations and events by showing that structures and mechanisms interact with contingent circumstances (Sarre 1987). In turn, the process of synthesis attempts to link abstract and concrete across a range of cases and itself contributes to an understanding of which relationships are necessary and which contingent.

Secondly, realism pays much attention to the difference between necessary and contingent relations. The existence of a variety of relations requires a careful consideration in distinguishing the necessary and contingent relations (Sayer 1992). First, although each part of the relation cannot exist without the other, it

is possible to identify them separately. An example is the relation between a squatter and a landowner. Secondly, although internally related phenomena are interdependent, this does not mean that they cannot change. For example, a city farmer as a squatter can become a lawful city farmer if he or she gets permission from the authority concerned. Thirdly, the necessary/contingent distinction has nothing to do with importance or interest - either kind of relation may be insignificant or important. Finally, asymmetric internal relations can also be distinguished where one object in a relation can exist without the other, but not vice versa. An example is the relation between city farming and vacant land.

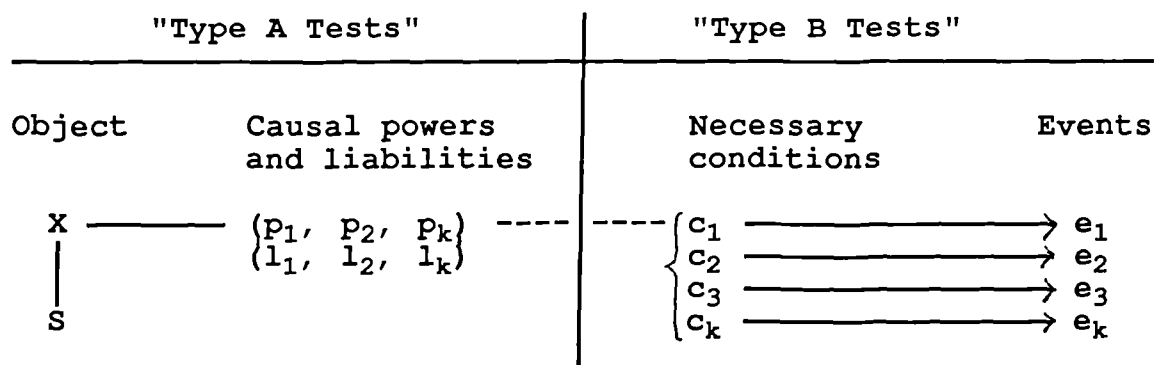
Thirdly, objects have causal powers or liabilities by virtue of their structures and relations, but whether these powers or liabilities are activated depends on contingently related conditions. The fact that the causal powers cannot be reduced to those of their constituents suggests that the world is stratified.<sup>3</sup> Because the world is stratified, there is no need to trace back to all the related causes in order to understand a research object (Sayer 1992). The nature or constitution of an object and its causal powers are internally or necessarily related, so if the nature of an object changes then its causal powers will change too. The relationship between causal powers or mechanisms and their effects is therefore not fixed, but contingent (Sayer 1992; see Figure 2.1). A power can be possessed unexercised and exercised unrealised, just as it may be realised unperceived (Bhaskar 1989).

Finally, under a closed system, mechanisms will produce regularities in events. In natural science, closed systems often either exist naturally or are created in experiments. But social systems are open because people can change their own character and circumstances; hence closed system experiments in the social field are basically impossible (Sayer 1992). If science is to be possible, insists Bhaskar



(1978 p126), "the world must be open; it is men that experimentally close it. They do so to find out structures, not to record patterns of events". At the most, social systems can only be quasi-closed, producing regularities that are only approximate and spatially and temporally restricted. It is characteristic of open systems that two or more mechanisms combine to produce effects.

Bhaskar (1986) suggests that generalisation is not an important goal nor are empirical laws thought worth pursuing. For the realist, causality concerns not a relationship between discrete events like "cause and effect", but the causal powers or liabilities, in other words capacities or tendencies, of objects, relations, or mechanisms (Sayer 1992). According to the realist approach, the most crucial objective of research is to find out not the regular pattern of phenomena, but the cause of events through the discovery of structure and mechanism of object by using imagined models. In short, a realist's structure of causal explanation can be shown in Figure 2.1.



where:

X: object, S: structure, p: causal power, l: liability, c: condition. e: event.

———— = necessary relation  
 ----- = contingent relation

Source: after Sayer (1992 p109 and p213)

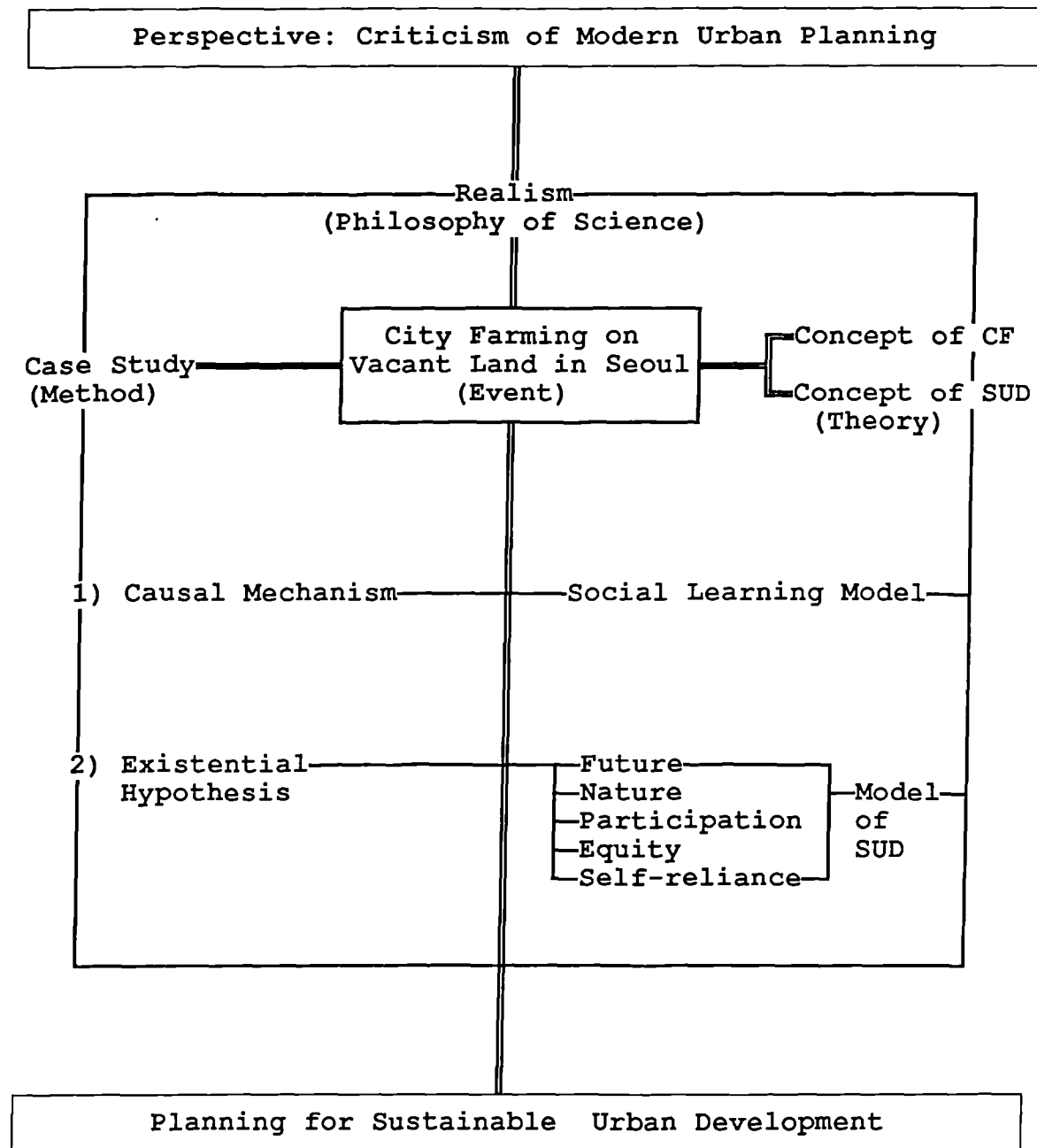
Figure 2.1 The Structures of Causal Explanation

The principles of realist approach can be applied to city farming research. First of all, city farming is a concrete research object. Through conceptualisation, however, an abstract aspect of city farming is picked up, on which to focus the research. As a social activity, city farming entails social relations in it where necessary and contingent relations can be identified. But the main concern of this research is to find out the structure made from a set of necessary relations. The causality of city farming must be explained by its causal powers or liabilities through a mechanism. And finally, not least importantly, city farming is itself an open system. City farmers as individuals in terms of their psychology, vacant land as a system, and other conditions are all open. But as Bhaskar (1978 p118) notes "there is the moment of theory in which closed systems are artificially established as a means of access to the enduring and continually active causal structures of the world". In other words, a clear description of conditions and a real definition through the conceptualisation process are ways for practical research to be possible in the open social world.

So the logic of explanation of city farming can be presented as follows:

- 1) there is an object of city farming in Seoul.
- 2) city farming has a structure in which certain necessary relations can be identified.
- 3) city farming has a mechanism, in which some causal powers or liabilities can be detected.
- 4) this thesis concentrates on the object's causal relations and on certain aspects of its existence such as the elements of sustainable urban development.
- 5) but, it should be noted that there may be other unknown and unconsidered mechanisms that cause city farming.

## Research Methodology



Note: CF : City Farming

SUD: Sustainable Urban Development

Figure 2.2 Conceptual Framework of Research

In short, a kind of necessity that holds between an event of vacant land and an event of city farming is a connection by a generative mechanism of social learning process. Together with this search for the mechanism, the thesis tries to show that the elements of sustainable urban development can be found in city farming. Figure 2.2 summarises the research framework. Based on this, empirical data will be collected. Within the framework of the realist approach discussed above, the next section deals with the design of the case study procedure.

## **2.3 RESEARCH DESIGN FOR CASE STUDY**

Based on the realist approach explained above, case study is selected as an appropriate research method. But before practical data collection is made, the research questions together with the unit of analysis and the number of cases must be clarified.

### **2.3.1 Research Questions**

According to Yin (1989), there are five levels of questions when a single case is part of a multiple-case study:

- Level 1: questions asked of specific interviewees;
- Level 2: questions asked of the individual case;
- Level 3: questions asked of the findings across multiple cases;
- Level 4: questions asked of an entire study;
- Level 5: normative questions about policy recommendations and conclusions.

While all these five levels of questions are important, at the data collection stage, the most relevant questions are level one and two. There are two kinds of questions asked in the thesis based on the realist approach:

The first is, what is the causal mechanism of city farming? In other words, why has a site of vacant land in the highly urbanised areas of Seoul turned into a city farming site? A semi-structured interview is necessary to focus on the main questions about the causal mechanism of city farming based on the social learning model.

The second is, unexpected though city farming is on vacant land, there seem to be elements of sustainable urban development in city farming. An existential hypothesis here takes the form that "there are elements of sustainable urban development in city farming". Certain clear criteria are needed to verify or disprove the existence of the elements in question. Therefore a precise conceptualisation is particularly important when the object is related to the concept-dependent internal relations. It should be made clear that just an instance of the observation of the relevant object is enough to confirm the hypothesis. This thesis suggests that there are elements of future, nature, participation, equity, and self-reliance in city farming, where these five elements are the necessary conditions for the satisfaction of sustainable urban development (see Chapter 3 for details).

Research design therefore should be matched up with the research questions. The realist research questions mentioned above need a rather intensive, qualitative method of research so the case study method is the best tool to answer those questions.

### 2.3.2 Unit of Analysis

The same case study may involve more than one unit of analysis. This occurs when attention is given to a subunit or some subunits. Such a design can be called an embedded case study design in contrast to a holistic design which uses only one unit of analysis (Yin 1989). The unit of analysis for the thesis is embedded:

1) Analysis of the causal mechanism of city farming explains under what kinds of necessary conditions this event has occurred through the mechanism of social learning. In this case, the unit of analysis is each city farmer on a site. Although the unit of analysis for the causal mechanism of city farming is each city farmer, the analysis at the level of each case site as a whole is as important as that of each city farmer because city farming is best understood as a social phenomenon.

2) The existential hypothesis that city farming has the five elements of sustainable urban development derived from the theoretical discussion of Chapter 3 is tested for each city farming activity on a site. In this case, the unit of analysis is an event of city farming on a site.

In short, the unit of analysis for causal mechanism of city farming is an individual city farmer in each case site while the unit of analysis for examining the existence of the elements of sustainable urban development in city farming is an activity as a whole in each site.

However, in both cases of the unit of analysis mentioned just above, city farming should be considered in a broad social context. City farming by a single city farmer on a vacant site is meaningless for the thesis. City farming by

definition presupposes a community or a neighbourhood. That is the reason why a single city farmer on a small site is excluded from the research. With the same logic, it is impossible to try to find out the causal mechanism of city farming and the elements of sustainable urban development in the individual's action alone. Social events cannot be explained by deducing them from the principles governing the behaviour of the participating individuals and descriptions of their situation because "societies are irreducible to people" (Bhaskar 1989). As far as city farming activity is concerned, if there is a single city farmer on a site of vacant land, large and small, there are no criteria to judge whether the activity conforms to the principles of sustainable urban development or not because "the predicates designating properties special to persons all presuppose a social context for their employment" (Bhaskar 1989 p28).

### 2.3.3 Multiple Case Study

The same study may contain more than a single case. Therefore it is necessary to decide whether a single case study or a multiple one is adopted before collecting any data. According to Yin (1989), there are three rationales for single-case study: 1) when it represents the critical case in testing a well-formulated theory; 2) where the case represents an extreme, rare or unique case; 3) when it can uncover some prevalent phenomenon previously inaccessible to scientists. Such conditions justify the use of a single-case study on the grounds of its revelatory nature. However, the findings of multiple cases are considered as more convincing than those of a single case.

The logic of multiple case study is not sampling but replication (Yin 1989). Each case must be carefully selected so that it either 1) predicts similar results (a literal replication) or 2) produces contrary results but for predictable reasons (a

theoretical replication). In this thesis, the three case sites would be literal replications. This replication logic must be distinguished from the sampling logic commonly used in surveys. According to the sampling logic, a number of samples are assumed to represent the population, so that data from a smaller number of persons are assumed to represent the data that might have been collected from the entire pool (Yin 1989). Any application of the sampling logic to a case study would be misplaced because the purpose of case study is not to generalise the phenomenon concerned.

Then the crucial question is how many cases are needed to be necessary or sufficient for the research? Because a sampling logic should not be used, the typical criteria regarding sample size also are irrelevant. The only criterion is whether it adopts the literal replication (2 or 3 cases) or theoretical one (4 or 6 cases).

Through the pilot study, external conditions affecting city farming activity on different sites were revealed not to be very divergent, so that not so many cases are needed to get a certainty of evidence. Even if the sampling logic is not acceptable, the criteria needed to settle the question of the number of cases should be set out. One of the criteria must be ownership of the vacant site. The others can be listed such as location, size of site, duration of vacancy and so on.

The thesis adopts the embedded unit of analysis and multiple cases. Each case's conclusions are considered to be the information needing replication by other individual cases. Particularly because this thesis uses multiple case study, the individual case report should indicate the extent of the replication logic and why certain cases were predicted to have certain results, whereas other cases were predicted to have contrary results (Yin 1989).



## **2.4 RESEARCH METHOD FOR CASE STUDY**

Before the main fieldwork for data collection starts, there are a number of considerations to be taken: overview of the case study, field procedure, case study questions, and guide for the case study report. The overview covers the background information, the main issues challenged, and review of literature related to the issues. The field procedure includes many important tasks: gaining access to interviewees, making a concrete schedule of the data collection, preparation for unexpected events like the changes of available interviewees or time. These questions remind the researcher of the focus of the issue.

The final preparation for data collection is the conduct of pilot case study. The pilot study helps refine the data collection plan, assisting the researcher to develop the most relevant questions. The pilot study is, in a sense, more important than the actual data collection stage. Based on the pilot study results, case study sites are selected. At the selected case study sites, intensive interviews are held to collect evidence to test the hypotheses proposed in the thesis.

### **2.4.1 Pilot Study**

A pilot study is essential to ensure the answers given actually exhaust all the possibilities. Without any pilot study, the actual research is likely to address unsuitable questions to bewildered people (Shipman 1988). Some of the points to be considered during the pilot study are: the time to be taken for each interview; the degree of the difficulty of questions; the possibility of biased questions to induce certain answers; and the method of analysing the answers.

From 28 July to 28 October in 1990, there was an extensive fieldwork in Seoul, South Korea. From 16 to 28 October 1990, there were intensive interviews with randomly chosen city farmers based upon a semi-structured interview format. One of the lessons from the pilot study was that for a single researcher the whole area of Seoul was too wide to cover. Although many slide films were produced during the pilot study, it was recognised that the description of the general situation of city farming on vacant land in Seoul had to be supplemented by documents and other statistics simply because Seoul is too large for a single researcher to cover.

In the pilot study, each interview usually took between 15 and 30 minutes. On occasion, when it took more than 30 minutes, some interviewees began to show their reluctance. But with less than 30 minutes, it was nearly impossible to ask questions and dictate all the responses. Therefore the author realised that interspersing the occasional joke could extend the duration of the discussion without spoiling the quality of the interview. Most interviewees were friendly and open but to certain questions such as income and cost, they were more reluctant to answer. The income question was in most cases irrelevant because the mostly elderly interviewees had no fixed income. A missing point which was recognised in the pilot study was that it was necessary to have interviews with public officers who were in charge of city farming on vacant land. So, these interviews were included in the final case studies.

The conclusion derived from the pilot study is that even if there are a variety of city farming sites with different characteristics in Seoul, there are common factors such as kinds of crops, motivation and reasons. So, for the purpose of the thesis, a minimum number of cases are enough to make it certain that the hypotheses can be tested in all cases.

### 2.4.2 Selection of Case Study Sites

Before setting out the details of the case study framework, this section briefs the reasons for selecting Seoul as a case study city:

- 1) There are a lot of vacant sites in Seoul.
- 2) There are a lot of city farming sites in Seoul.
- 3) Secondary data such as government documents and statistics are more easily available in Seoul than any other cities in South Korea
- 4) The researcher is familiar with Seoul, and has many friends and colleagues who can help research into the subject.
- 5) Seoul is one of the best examples of almost all urban problems with which other South Korean cities have to cope.

The case study sites should be in highly urbanised areas within the boundary of Seoul so city farming sites in Green Belt and urban fringe areas have not been included as case sites. One of the reasons for this criterion is that commercial farming in Green Belt or fringe areas can distort the characteristics of nearby city farming practice which otherwise would have the unique characteristics of the city farming defined in the thesis (see page 130).

The second criterion for sites selection is that the size of site should be reasonably large. On a small city farming site with, for example, less than 5 farmers, it is hard to find out the mechanism of city farming because the case might be a contingent one. The other reason for this criterion is that the small vacant sites are usually matters of the personal, not the social.

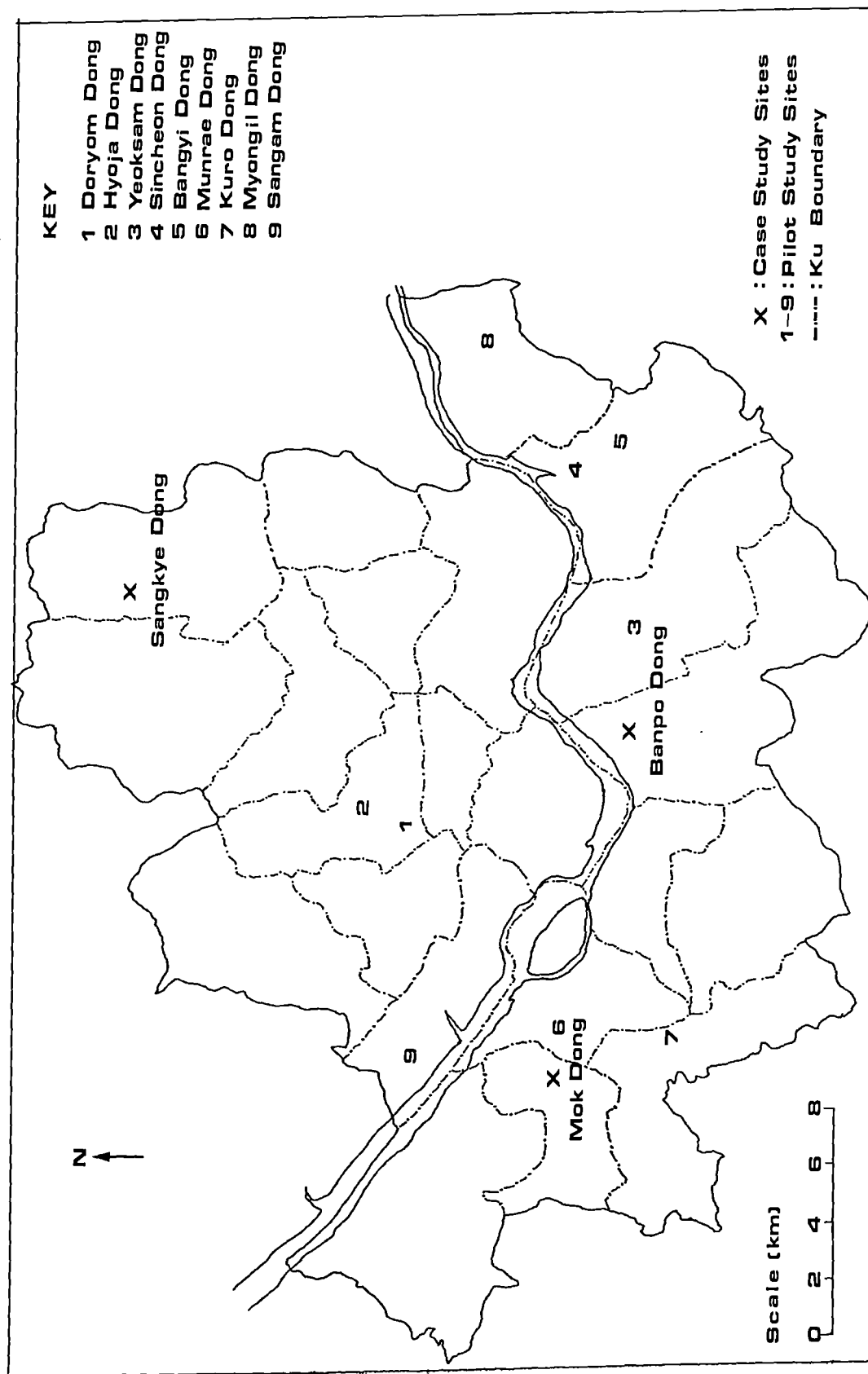
The basic framework for the selection of the case study sites is shown in Table 2.1. At the earlier stage of the fieldwork, the author extensively surveyed a

## Research Methodology

Table 2.1 Framework for the Selection of Case Study Sites

Zone	Location			
	City Centre	Sub-City Centre	District Centre	Urban Fringe
Commercial Zone	Doryom Dong <sup>1</sup> (Jongro Ku)	Yeoksam Dong <sup>3</sup> (Kangnam Ku)		
		Sinchon Dong <sup>4</sup> (Songpa Ku)		
Residential Zone	Hyoja Dong <sup>2</sup> (Jongro Ku)	Bangyi Dong <sup>5</sup> (Songpa Ku)	Mok Dong* (Yangchon Ku)	Myongil Dong <sup>8</sup> (Kangdong Ku)
			Banpo Dong* (Seocho Ku)	
			Sangkye Dong* (Nowon Ku)	
Industrial Zone			Munrae Dong <sup>6</sup> (Yongdungpo Ku)	
			Kuro Dong <sup>7</sup> (Kuro Ku)	
Green Zone				Sangam Dong <sup>9</sup> (Mapo Ku)

N.B. Numbers and \* marks include the pilot study sites. In particular, numbers 3, 4 and \* marked sites are the pilot interview sites. Locations are shown in Map 2.1. \* marks denote the finally selected case study sites.



Map 2.1 Pilot and Case Study Sites in Seoul

considerable number of city farming sites and vacant sites in order to know how ubiquitous vacant sites were, and how widespread city farming was in Seoul. Then the author focused on some sites for further investigation according to the following procedure:

- 1) Selection of Kus (the primary local government in Seoul; there are 22 Kus in Seoul; for details of the administrative system of South Korea see page 106) which have much vacant land through consulting statistics and other documents.
- 2) Selection of specific sites by Dongs (supplementary administrative bodies; there are 516 Dongs in Seoul as of 1992).
- 3) Exclusion of urban fringe areas because of the difficulty of distinguishing between city farming as defined in the thesis and commercial farming.
- 4) Exclusion of the city centre because no city farming site was identified in the area.
- 5) Exclusion of industrial zones because the environment of the zones was too remote from the everyday life of ordinary citizens.
- 6) Exclusion of single farmer sites and small size sites.
- 7) Finally three case study sites were selected.

The final case sites have been reduced to three mainly in residential zones because the pilot study results of the two commercial zone sites were not so different from those of other zone sites. Because this research is not concerned with finding out any patterns nor in generalising the results, three cases are good enough to find out the structure and mechanism of city farming and the existence of elements of sustainable urban development in city farming.

### 2.4.3 Interviews

Interviews not only depend on the quality of the questions asked, but on the awareness of the interactions involved. Interviews are more flexible than questionnaires and can probe deeper. One of the most important factors to keep in mind is who is being interviewed. Interviews of children are quite different from those of the elderly in terms of interview design and procedure, and even the analysis of the results. In the pilot study, most of the possible interviewees were revealed to be old people. On his case study of city farming in a new town of South Korea, Choi (1988) notes that the responses of the elderly interviewees tend to be, on occasion, illogical and inconsistent and they seem to be reluctant to reveal some facts that would lead to the loss of their vested interests in city farming. In fact, the pilot study as well as the main case study of this research showed that these worries were baseless and that most of the interviewees expressed their opinions clearly and rather logically. However, the interviews with old people must be held carefully in terms of their cultural and religious backgrounds and other physical conditions. Therefore, from the beginning of the case study, the researcher took these matters into consideration.

The main interviews with city farmers were held between the 13th of June and the 7th of July 1992 at each site. The interviews with public officers were held between the 30th of June and the 7th of July 1992 at the Ku or Dong Offices concerned (for detailed schedules, see Appendix B). In relation to the interview time spent on each case, there is one thing that should be mentioned here. Because the time spent on each interview was relatively short (25 minutes to 60 minutes), there could be a possible criticism about the lack of ethnographic depth. However, in many cases, after the interviews, there were either instant follow-up checks or follow-up visits for a further examination of such questions as land use around the site, roads and traffic, kinds of vegetables being

cultivated, and attached facilities, for example. That means the total time spent on each interview is, in fact, much longer than shown in the Appendix B. Furthermore, the number of interviews (23 interviews including 8 of them with public officers) seems to be sufficient to get enough evidence for the research hypotheses. The interview method was a focused and semi-structured one. Therefore model setting and clarification of questions were prerequisites for the actual interviews. This section deals with the questions for causal explanation and sustainable urban development in the interviews.

#### **2.4.3.1 Questions for Causal Explanation**

Firstly, there are questions for individual case site about land use such as area, land category, land use around the site, ownership, previous use, reasons for vacancy, and prospects of development, for example (see Appendix A-1). However, such questions about the case site as a whole cannot be directly asked of the interviewees simply because they do not know the details of land use history. Therefore these questions can be answered either from available statistics or by interviews with public officers and city farmers as supplementary comments.

The interviews were held mainly with city farmers and local government officers who were in charge of this activity. Major questions were: what is the action called city farming?; who is the actor called city farmer? are any other actors involved in this matter?; who learns what?; how significant is the leading agent's role in initiating city farming on vacant land?

Based on the social learning model, the interview format is set up into four categories - basic information, actor, practice learning and reality learning (see Appendix A-2):



In the basic information section, there are 6 questions concerning area, kinds of vegetables being cultivated, attached facilities, stolen vegetables, tramping damage, and methods of watering.

In the actor section, there are 7 questions concerning sex, age, address, hometown, years of residence in Seoul, education, and religion.

The practice learning section includes such questions as interviewees' personal, practical and technical experience and knowledge concerning city farming, and what they learn of farming techniques from a leading agent or neighbouring city farmers.

In the reality learning section, interviewees' understanding of socio-economic conditions concerning city farming is asked: for example, reasons for cultivation; opinions about the existence of vacant land; the idea of neighbourhood (or community); economy-related questions; any conflicts with local authorities; relationships with landowners, local government, neighbours, and even their own families.

#### **2.4.3.2 Questions for Sustainable Urban Development**

For the purpose of understanding and explanation of the concept of sustainable urban development, the thesis develops a metaphorical framework called the "sustainable hut" (for details, see Chapter 3). The analogy goes like this: if a primitive hut can be sustainable, it must have at least two columns, a beam, and two sides of roof. The roof is supported by a beam which is again supported by columns which stand on the ground. Likewise, if a social activity can conform to the principles of sustainable urban development, it should fulfil social equity and economic self-reliance supported by political consensus which is further supported by the future and nature, which stand on culture. Based on the criteria developed in the next chapter, this simple "sustainable hut" will be further refined.

It is quite usual for researchers to try to explain the unfamiliar by reference to the familiar. Adam Smith's "invisible hand" and Charles Darwin's "tree of descent" are all metaphors but have significant explanatory powers. Sayer (1992) points out that some scientists have ignored the role of metaphors and "picture-carrying expressions" preferring mathematical formulae. Rorty (1980 p12) says that "it is picture rather than propositions, metaphors rather than statements, which determine most of our philosophical convictions". But it must be noted that metaphors are powerful constituents of causal expression only so long as their use is governed by realistic standards of precision (Smith 1991).

Questions for sustainable urban development are not so remote from those for the causal mechanism of city farming. Some questions may overlap each other. But the fundamental difference between the two lies in the unit of analysis. The causality questions focus on each city farmer while the questions of sustainable urban development centre on the activity as a whole in a site. This implies that a mere analysis of each city farmer's activity is not enough to judge the existence of the elements of sustainable urban development. In short, the approach to the questions of sustainable urban development is comprehensive and dynamic; not only the interviews with city farmers and public officers but also other statistics and interpretation are needed to achieve a successful analysis.

As far as measurement is concerned, the questions are: what sorts of data are needed for each element?; can it be obtained anyway?; how can it be used for analysis? The other important question which can be raised is which elements are more important than any other ones? Is weighting necessary for each element? The answer to this latter question is that there is no need weighting because the relationships between elements are rather like those of a family,

where it is nonsense to weight the importance of each family member (for details of the criteria see Chapter 3 and Appendix A-3).

## 2.5 CONCLUSION

One of the most important things in the organisation of research is the coherent integration of method, theory, and philosophy of science because aims, methods and research objects are all interdependent in social science.

The thesis adopts intensive research design using qualitative methods of semi-structured interviews, and causal and structural analysis. Although there is some criticism of this approach as "story-telling" (Blaug 1980), if concrete explanations of events are required, intensive research design must be appreciated. While extensive studies, whose main aim is to describe the phenomenon concerned and to generalise the findings, are weaker for the purpose of explanation than intensive ones and there are no good alternatives yet developed for "scientific" research, a realist intensive research design is worth trying. But intensive and extensive methods should be complementary rather than competitive because the understanding of "what" is as significant as the understanding of "why" (Sayer 1992).

The next chapter deals with the conceptualisation of sustainable urban development to set up an appropriate model on which the examination of one of the hypotheses that city farming conforms to the principles of sustainable urban development is based.

## Notes

- 1 Sayer (1992) further distinguishes theoretical model and empirical model. Theoretical model assumes the existence of a simple, hypothetical closed system while empirical model is fitted to actual data, and in social science to open system.
- 2 For the complex nature of being itself, there are many kinds of realism which give sometimes confusing ideas, needing a further explanation of those categories. For Bhaskar (1986), there are three kinds of realism: predicative realism, asserting the existence of universals independently or as the properties of particular material things; perceptual realism, asserting the existence of material objects in space and time independently of their perception; and scientific realism, asserting the existence and activity of the objects of scientific enquiry independently of the enquiry or of all human activity. Regularity realism or new realism (Strawson 1987; Pawson 1989) contrasts critical realism (see Bhaskar 1989; 1991) while Bas van Fraassen is called a naive realist because he admits the existence of actual physical objects if they are only observable (Dilworth 1990). When Ian Hacking distinguishes realism about theories and realism about entities, Dilworth (1990) finds out a problem in Hacking's classification, and he suggests two sorts of realism: realism about theoretical entities such as electrons and realism about empirical entities such as laboratory instruments.
- 3 The evidence of stratification in the objects of the natural sciences is relatively good, but rather unclear in social science.

# Chapter 3

## *Sustainable Urban Development*

### 3.1 INTRODUCTION

This chapter deals with the theoretical background of this thesis. The schema suggested in Chapter 1 about the relationships among development, anti-development and sustainable development implies that the concept of sustainable urban development is a synthesis of the conflict between urban development and urban anti-development. However, the current definitions and arguments about sustainable development are so broad and preoccupied with the global scope that they seem to miss the point. This chapter, thus, tries to develop a more concrete form of the concept at the local level.

This chapter, firstly, defines development, sustainable development, and sustainable urban development. Then, for a clearer understanding of the concept of sustainable development, the history of the concept formation of sustainable development is scrutinised before the dimensions and criticisms are discussed. In the following section, five elements as the conditions of sustainable urban development are suggested with detailed discussion about three criteria for each element. Finally, the model briefly suggested in Chapter 2 is more refined.

## 3.2 DEFINITIONS

### 3.2.1 Development

The British Town and Country Planning Act 1971 (section 22(1)) defines development as "the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land". This definition is rather physical and does not take into consideration the socio-economic context. Generally speaking, development is associated with economic growth. However, dismissing both development and economic growth as a standard of welfare and examining the roots of the concept of economic growth, Hodson (1972 p29) notes in his book, *The Diseconomics of Growth*, that:

the theory of economic growth is barely two decades old; it is very far from scientifically established or universally accepted in a clear or stable form; it has yet to be fully tested over long-term, varied economic experiences; and it has never quite disentangled itself from Keynesian theory of business fluctuations and monetary effects.

The most familiar indicator of development is Gross National Product (GNP). The limitations of GNP as a measure of development are easily identified (see Hodson 1972; Redclift 1987; Brown et al. 1992). As environmental conditions deteriorate, the disparity between the GNP's measure of progress and actual human well-being is even widening.<sup>1</sup> The environmental degradation with consequent health hazards as the integral features of economic growth was described by Capra (1982) as "the dark side of growth".

Development does not necessarily imply growth. It may express the idea that the world or society is becoming better, perhaps producing more. It, therefore, involves a value judgement (Munn 1989). Development embraces wider concerns of the quality of life. According to Pearce et al. (1989), development is

a value word: it embodies personal ideas and aspirations and concepts of what constitutes the good society. So, they define development as a vector of desirable objectives.

The development used in sustainable development or development planning has, according to Sachs (1989; see La Court 1992 p101), a specific origin. The term "development" as widely understood worldwide now was firstly used on the 20th January 1949, when President Truman of the United States, in his inauguration speech, defined the largest part of the world as "underdeveloped areas"; thus a new world-view was declared to encourage all the people to move along the same track and aspire to only one goal: development.

Meanwhile, Bartelmus (1986 p3) describes the meaning of development as follows:

Development is generally accepted to be a process that attempts to improve the living conditions of people. Most also agree that the improvement of living conditions relates to non-material wants as well as to physical requirements. Development goals that call for the increase of human welfare or the improvement of the quality of life reflect this agreement.

On the other hand, development was presented in the World Conservation Strategy (WCS) by United Nations Environment Programme (UNEP) (1980) as "the modification of the biosphere and the application of human, financial, and living and non-living resources to satisfy human needs and improve the quality of human life". Reviewing the definitions suggested above and considering planning as an exercise of development, this thesis, therefore, defines development as "changes in socio-economic structure, which affect the improvement of the quality of life at certain levels of locality". But the definition of development is quite different from that of sustainable development.

### 3.2.2 Sustainable Development

Munn (1989) argues that the term "sustainable" must be carefully defined because a resource which is sustainable when used in certain ways may not be sustainable if these practices change. Conway and Barbier (1988; see Pearce et al. 1989 p175) note that:

more difficult to define is sustainability and the common use of the word "sustainable" suggests an ability to maintain some activity in the face of stress - for example to sustain physical exercise, such as jogging or doing press-ups - and this seems to us also the most technically acceptable meaning. We thus define agricultural sustainability as the ability to maintain productivity, whether of a field or farm or nation, in the face of stress or shock.

But the important point here is not the word "sustainable" itself, but the concept of "sustainable development" as a whole.

Before defining sustainable development, this section examines similar concepts. Aware of the ecological successes and of the relevance of ecological factors in the development process, a new planning concept called "ecodevelopment" has been advocated, in particular by UNEP. UNEP defines ecodevelopment as "development at regional and local levels... consistent with the potentials of the area involved, with attention given to the adequate and rational use of the natural resources, and to applications of technological styles..." (Redclift 1987 p34). For Sachs (1979 p113 and 1987; see also Adams 1990), ecodevelopment is "an approach to development aimed at harmonising social and economic objectives with ecologically sound management, in a spirit of solidarity with future generations".

As far as definition is concerned, many interpretations are possible according to the terms used such as sustainable growth, sustainable development, sustainability, sustainable utilisation. Pearce et al. (1989 p33) propose that there



are different meanings among economic growth, sustainable economic growth, and sustainable development :

Economic growth means real GNP per capita is increasing over time. But observation of such a trend does not mean that growth is "sustainable".

Sustainable economic growth means that real GNP per capita is increasing over time and the increase is not threatened by "feedback" from either biophysical impacts (pollution, resource problems) or from social impacts (social disruption).

Sustainable development means that per capita utility or well-being is increasing over time; or that a set of "development indicators" is increasing over time.

O'Riordan (1989) also distinguishes sustainability from sustainable utilisation: here sustainability is a much broader phenomenon, embracing ethical norms within the Gaianist tradition, considering the rights of future generations of all living matter. Sustainable utilisation is used by the international conservation community like International Union for Conservation of Nature and Natural Resources (IUCN) to denote a rate of resource-take which equals the rate of renewal, restoration, or replenishment.

Allen (1980; see Pearce et al. 1989 p173) defines sustainable development as development that is likely to achieve lasting satisfaction of human needs and improvement of the quality of human life. Robert Repetto (see Pearce et al. 1990 p4) defines that sustainable development is,

a development strategy that manages all assets, natural resources, and human resources, as well as financial and physical assets, for increasing long-term wealth and well-being. Sustainable development, as a goal, rejects policies and practices that support current living standards by depleting the productive base, including natural resources, and that leaves future generations with poorer prospects and greater risks than our own".

Redclift (1987) argues that a definition of sustainable development needs to take account of the wide variations in the industrial and productive structures of different countries. In addition, he suggests that sustainable development require a broader view of economy and ecology together with a political commitment to ensure that development is sustainable. Meanwhile, based on the thermodynamic interpretation of the economic process, Rees (1990) suggests a new definition of sustainable development: a development that minimises resource use and the increase in global entropy.

The term "sustainable development" has been described variously, but the most accepted definition seems to be that of the Brundtland Report (WCED 1987), which defined it as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". This definition is based on two concepts: the first is the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and the second is the idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs. But, as Stokke (1991) argues, to be operative in terms of the planning and forming of our common future, the definition by the Brundtland Report has to be sharper.

There is no consensus about the definition of the concept. As Goodman and Redclift (1991) note, different definitions reflect disciplinary biases, distinctive paradigms and ideological disputes. In a sense, the meaning is so self-evident that there seems no need for definition. Therefore efforts to operationalise sustainable development and to integrate it into practical decision-making have been few. Pearce et al. (1990) are quite right when they say that much of the sustainable development literature has confused "definitions" of sustainable development with the "conditions" for achieving sustainability.<sup>2</sup>

In this thesis, sustainable development is defined as "an ideology which is based on the proposition that environment and development are mutually dependent and the reciprocal relationship ought to be maintained for the benefit of the present and future generations". What matters here is the multi-faceted characteristics of the concept which require different approaches and perspectives from various disciplines. One of them is sustainable urban development.

### 3.2.3 Sustainable Urban Development

It seems that sustainable urban development, by extension, means sustainable development in the urban domain. Button and Pearce (1989 p176) write that "the basic hypothesis is that sustainable urban development requires the urban environment to be improved as a factor contributing to the quality of life, and as a factor contributing to the development of the urban economic base."

Breheny (1990) argues that cities affecting the natural environment are themselves a resource that needs to be protected as development activities are sustained, and that, therefore, sustainable urban development is required. Translating the definition of sustainable development by Pearce et al. (1990) into the urban domain, Breheny (1990) defines sustainable urban development as "urban development which is subject to both constant natural capital stock and constant man-made capital stock giving intra- and inter-generational urban equity". But this definition is limited both in scope and in implication because he sees cities just as a resource focusing on the economic aspect, therefore, missing the political dimension of urban life.

For Elkin et al. (1991), sustainable urban development is a new goal which rests on four principles: futurity, environment, equity, and participation. Although

sustainable urban development focuses on the over-arching needs of environmental protection and resource conservation, they argue that the need to improve democracy and social equity cannot be ignored because without those social goals, long-term environmental sustainability is not achievable (Elkin et al. 1991).

As already mentioned, this thesis understands sustainable urban development, from the planning point of view and theoretically speaking, to be a synthesis of the conflict between modern urban development and postmodern urban anti-development. Thus, the concept of sustainable urban development negates both the conventional meaning of city as a growth machine and the postmodern image of disordered and fragmented urban space where only reproduction matters. Sustainable urban development is not a static concept but a dynamic one which contains complex elements. It is a goal or a set of principles rather than a statement of facts and affairs. In short, sustainable urban development is defined as "an ideology which is based on the proposition that, in the urban domain, environment and development are mutually dependent and the reciprocal relationship ought to be maintained for the benefit of the present and future generations".

Having examined all the definitions concerning development, sustainable development and sustainable urban development, the thesis tries to develop an appropriate set of principles or conditions for sustainable urban development. Before that, it is important to trace further the historical origins of the concept because, as Skolimowski (1981) says, "if we do not know how our present values came about then we cannot change them". The next section deals with the origins as well as the dimensions and criticisms of sustainable development.

### **3.3 SUSTAINABLE DEVELOPMENT**

Sustainable development has become, in recent years, a buzz word for environmentalists and politicians alike. Environmental quality and economic growth are seen as harmonious objectives. Everyone, therefore, seems to be in favour of sustainable development. The concept of sustainable development is so broad and abstract that it is hard to understand the real meaning.<sup>3</sup> There is no agreement on what it means and how to achieve it. This concept seems to be reformistic, idealistic, eclectic, and optimistic. Given the inherently conservative characteristics of political and economic systems, a process towards sustainability will have to be managerial rather than revolutionary. It would seem that recent arguments about sustainable development have a global dimension rather than a regional or local one, thus focusing on the economic issues of the Third World in particular.

This section further examines the concept of sustainable development in terms of historical background, dimensions and criticisms.

#### **3.3.1 Historical Background**

The concept of sustainable development is basically rooted in the Western environmentalism. However, it has been developed and implemented in the Third World - originally in African countries and later in the other Third World countries - by the initiatives of the United Nations. This section deals with these two aspects of historical background.

##### **3.3.1.1 Western Environmentalism**

There is no doubt that the concept of sustainable development is deeply rooted in the Western environmentalism (Adams 1990). There are, then, a lot of references for the history of modern environmentalism developed particularly

in Europe and North America, which is well described elsewhere (see Sandbach 1980; Pepper 1984; Nicholson 1987; McCormick 1989; and Evans 1992). The details of this historical development are beyond the scope of the thesis.

But all the different branches of environmentalism came from the same origins. One of the origins is the critical review of Christianity. White (1967) searches for the roots of ecological crisis in the Christianity. He writes that Christianity is the most anthropocentric religion the world has seen. He concludes that science and technology can not rescue people from present ecological crisis until a new religion will be found. But Passmore (1980) argues against that: even if Genesis certainly claims that man is the master of the earth, it insists at the same time that the world was good before man was created, and that it exists to glorify God rather than to serve man.

On the other hand, there is another way of finding the cause of ecological crisis in over-population. If population growth is understood as a path to the problems, the root can be traced back to Malthus (1798). From this origin, there occur many branches: from anti-Malthusians like Marx and the American land reformer Henry George to neo-Malthusians like Paul Ehrlich and Dennis Meadows. But most of the arguments revolve around the proposition as to whether population increase is the cause or the effect of environmental degradation, to which there is no resolution yet.

The emergence of the environmental movement in the 1960s was at first seen by many on the left as a mere middle class indulgence, far removed from the more immediate concerns of the world's suffering people (Tokar 1988). Although all those modern environmental concerns are surely looming behind the concept of sustainable development, the history of the sustainable development idea must contain the way these essentially metropolitan ideas were expressed on the

periphery in the present century, initially on the colonial periphery and latterly within the countries of the independent Third World (Adams 1990). The reason why sustainable development has basically a global scope can be found in the role of the United Nations who developed this idea.

### 3.3.1.2 UN Initiatives

The initiatives of ECOSOC (UN Economic and Social Council), FAO, UNESCO, IUPN (International Union for the Protection of Nature, founded in 1948 and renamed in 1956 to IUCN) and UNEP have all contributed, directly or indirectly, to the awakening of the importance of nature conservation. In a sense, the original concept of sustainable development can be said to be a product "*made in the UN*" for the consumers of the Third World.<sup>4</sup>

Some academics trace back to the Greek age to find out the genealogy of sustainable development (O'Riordan 1988). But contemporary meaning of the concept is a new one. It began with a series of African-based conferences in the mid-1960s. In 1973, the Assembly of IUCN moved nearer to the concept by defining conservation as "the management of air, water, soil, minerals and living systems including man so as to achieve the highest sustainable quality of life" (O'Riordan 1988). At a UN conference in Cocoyoc, Mexico in 1974, it was declared that development should be increasingly self-reliant (Friedmann and Weaver 1979). The term "sustainable development" was firstly used in the Cocoyoc declaration in 1974 (Redclift 1987). Since then it has become the trademark of international organisations dedicated to achieving environmentally benign or beneficial development.

The World Conservation Strategy (WCS) identified three objectives for the promotion of nature conservation at a global level (IUCN et al. 1980):

The first objective is the maintenance of essential ecological processes, which are governed, supported or strongly moderated by ecosystems and are essential for food production, health, and other aspects of human survival and "*sustainable development*"; the second is the preservation of genetic diversity; and the third is the "*sustainable development*" of species which are cropped, forests and timber resources and grazing land.

Even if the popularity of the term sustainable development owes much to the initiative of the WCS, as Redclift (1984) argues, the WCS did not examine the social and political changes that would be necessary to meet conservation goals. Successful in understanding the critique of development in practice, notes Adams (1990), the WCS failed to recognise the essentially political nature of the development process. Furthermore, although the main question in the WCS was what sustainable development and sustainability meant, nowhere in the WCS was it explicitly defined.

The United Nations created a World Commission on Environment and Development (WCED, often called the Brundtland Commission) in 1983 to study the less-developed countries' economic and ecological crisis.<sup>5</sup> The final report, *Our Common Future*, was published in 1987. One of the most important messages of the Brundtland Report is that questions of the global environment cannot be separated from the political, economic and moral issues. In other words, the false dichotomy of the trade-off relationship between development benefits and environmental problems has been corrected as it was realised that the environmental problems were usually economic problems and eventually development problems, and that poverty was the cause as well as the effect of environmental degradation. As Brundtland herself admits, *Our Common Future* comes after Brandt's *Programme for Survival* and *Common Crisis*, and Palme's *Common Security* (WCED 1987 px).

In short, although the concept of sustainable development has its deep root in the Western environmentalism, the UN took the initiative to popularise the



concept particularly for the Third World. But recently this concept has been widely debated and employed to tackle, for example, the urban development problems of the developed countries. This implies that the concept has a variety of perspectives and dimensions. The next section discusses various dimensions of sustainable development.

### **3.3.2 Different Dimensions**

Holmberg et al. (1991) argue that soil erosion, salinisation, degradation, and chemical poisoning of soil are not "environmental problems", but just symptoms of the economic, social and political problems. The point can be reduced to the question as to whether environmental problems can be adequately understood without reference to the social, economic, and political organisation of the societies from which they arise.

To establish a proper conceptualisation of sustainable development, it is necessary to identify multiple dimensions of the concept. From the locality point of view, there are many dimensions in sustainable development; community, urban or rural, local, regional, national, international and global. Redclift (1991) argues that there are three dimensions: the economic, the political, and the epistemological (based on the cultural differences of countries) dimensions. However, this section suggests that there are at least three most important dimensions in sustainable development: economy, politics and environment.

#### **3.3.2.1 Economy**

Many environmental economists are looking at currently unmarketed environmental benefits as well as people's values and beliefs about the environment and trying to measure them on a monetary scale. Incorporating this procedure into economic planning, they hope, will make the economy

sustainable. But for Lohmann (1991), it seems unlikely that environmental economics will be able to assimilate into prices the rich variety of views it would need to make the economy sustainable.

"This Common Inheritance", the White Paper published by the British Government in 1990 supports the integration of economic growth and environmental good sense arguing that:

Economic growth is not an end in itself. It provides us with the means to live better and fuller lives... Growth is a necessary though not a sufficient condition for achieving the higher quality of life that the world wants. In countries already rich beyond the dreams of a generation ago, growth is still needed to provide the resources to clean up the pollution of old industries and to produce the technology to accommodate tomorrow's industrial processes to cleaner surroundings. In countries still miserably poor, growth which will last is essential to overcoming the ruinous impact that poverty itself has on the environment. There is, therefore, no contradiction in arguing both for economic growth and for environmental good sense. The challenge is to integrate the two (p8).

Most governments argue that if a city has a strong economy, it is unlikely that it will fall into dereliction and decay, and if the environment improves, its attraction as a place to live, work and invest will increase. But in reality the opposite seems to be true. All the environmental pollution and other problems have occurred due to the economic development such as increasing passenger cars, intensified farming, mass-producing manufacturing factories. The concept of sustainable development seems to be increasingly a good excuse for the growth-oriented policies of the government.

Economists are interested in scarcity as the underlying reality behind human choice while environmentalists are concerned that economic growth is the reality which makes human choice less and less possible under conditions of scarcity (Redclift 1988). Economists argue that it is possible to consider the environment within the governing economic paradigm. Moreover, Pearce et al.

(1989) argue that the key to sustainable development lies in accounting, to bring longer-term and environmental costs and benefits into the economic equation, to change the basis upon which profitability is measured and to move into the private sector costs which are presently born by the public. But Charles Hall (1990) argues that

environmental problems are not taken into account in most economic analysis, because contemporary neo-classical economics fails to assess the total social costs and benefits of most projects. Nevertheless, neo-classical economic assumptions are used routinely in economic decision-making as if there were no alternatives, and their use sanctions many projects unworthy by most other criteria (see also Lombardini 1989).

The main conflict is between development in terms of growth and the realisation of an ecologically sound development. Most countries, especially developing countries, have had economic growth as the primary aim and have pursued development strategies adapted to this aim, to which the concept of sustainable development now questions. It is time to unite the sciences of economics and ecology as increasing environmental degradation holds back economic growth. Valuing environmental damage correctly is the key to sustainable development. Present economic theories are not appropriate to deal with the concept because they do not consider intergenerational equity and treat the environment as an externality (Holmberg et al. 1991).

### **3.3.2.2 Politics**

A notable characteristic of environmentalism in the 1960s and 1970s was that it was often apolitical (Paehlke 1989). Paehlke (1989) insists that environmentalism is a political theory with ideological potential. Rudolf Bahro sees the ecology crisis as "the quintessential crisis of capitalism" and insists that the so-called Marxist ecology must be abandoned in favour of a new ecologically inspired political theory (see Eckersley 1988).

Economic sustainability and ecological sustainability are still dealt with as two separate questions in all governments and international organisations, where they are the responsibility of separate agencies such as ministries of finance and departments of the environment. In almost every country, policies are being formulated whose long-term environmental implications are not part of decision-making. This, together with the public attitude, has to be changed.

Milbrath (1989 p334) writes that

sustainable development objectives should be incorporated into the mandates of national, regional, and global institutions. Economic and ecological responsibilities should be integrated within the same agencies and be given equal weight - all projects should be both ecologically and economically sustainable.

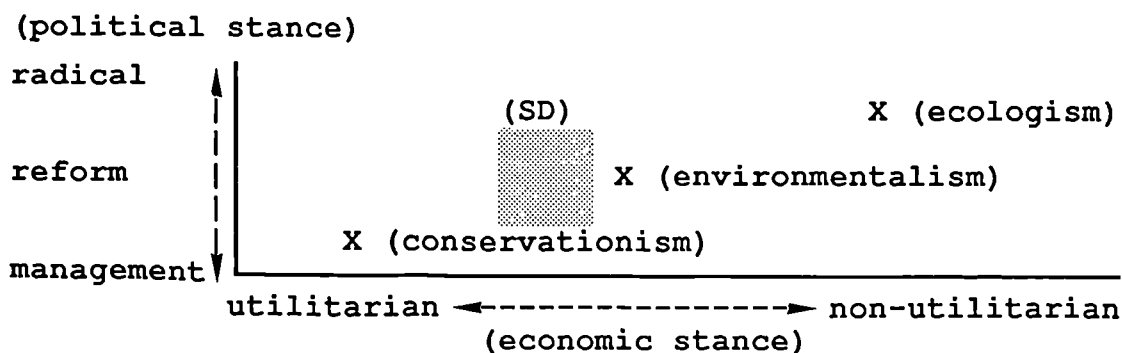
Sustainability is not regarded seriously by those who have power to make decisions, and control the flows of capital. The promotion of sustainability implies a reorganisation of related agencies. The full application of sustainability also demands new arrangements for budget-sharing and cross-organisational responsibilities that are deemed unacceptable or unworkable by those who benefit and operate through existing arrangements (O'Riordan 1988).

On the other hand, Marxism holds that man and nature are not separate and are not governed by a subject-object relationship, where the unity of the two comes about via the process of labour (Pepper 1984). Marxist analysis has traditionally regarded environmental problems as a necessary evil of capitalist development. The full impact of Marxist thinking on the relationship between society and nature will inevitably depend on the degree to which Marxism fully incorporates the implications of unsustainable development. Enzensberger (1974) has criticised the ecological movement for its lack of ideological sophistication, declaring that it is ill-equipped to make the transfer from the natural world to its social mediation. Redclift (1988) notes that "societies of

appropriation", which are unsustainable, have been replaced with "societies of production", which depend for their very existence on an accommodation to environmental values.

### 3.3.2.3 Environment

Dobson (1990) suggests that ecologism as a political ideology for Green politics is quite different from conservationism and environmentalism.<sup>6</sup> He emphasises that "if we confuse Green politics with either conservationism or environmentalism, then we severely distort and misunderstand the nature of the Green challenge to the political, social, economic and scientific consensus that dominates the late twentieth century" (ibid. p4). The fundamental difference between environmentalism and ecologism is that ecologism argues that care for the environment presupposes radical changes in the mode of social and political life, and to the contrary, environmentalism argues for a reformistic approach to environmental problems, secure in the belief that they can be solved without fundamental changes in present values. For Sagoff (1988), environmentalism as a movement aroused in the 1960s and 1970s differs from conservationism in defending a non-utilitarian conception of man's relationship to nature. The relationships among these three concepts and the position of sustainable development can be summarised in Figure 3.1.



Note: ■ (SD) denotes the position of sustainable development

Figure 3.1 The Position of Sustainable Development

In the context of sustainable development, a number of approaches have been used to explore the ecological part of the concept (Munn 1989):

- (a) *Maximum Sustainable Yield* of natural resources. This is the basis of international fishery agreement, for example.
- (b) *Carrying Capacity* of a region. A region can sustain a certain population of wildlife, farm animals, or people.
- (c) *Assimilative Capacity* of a region. It is acceptable to release pollutants if environmental standards are not violated.

Holling introduced the concept of resilience as a measure of the ability of an ecosystem to adapt to a continuously changing environment, being able to absorb external shocks without major structural damage (Munn 1989). Although it is difficult to express quantitatively, resilience seems to be a useful concept as one of the characteristics of sustainable development. Meanwhile, Lovelock (1979) has elaborated the Gaia Hypothesis, the idea that the earth is alive, where Gaia is defined as a complex entity involving the Earth's biosphere, atmosphere, oceans, and soil. This assumes that the biosphere exerts homeostatic control of the chemical composition of the Earth's atmosphere. These life support systems contain many feedbacks which help to maintain global equilibrium. The Gaia Hypothesis would be one of the theoretical backgrounds for sustainable development.

#### 3.3.2.4 Concluding Remarks on Dimensions

Summing up all the dimensions mentioned above, the thesis recognises that there must be a reconciliation between those who seek sustainable economic development and those seeking sustainable ecological development. Economic and ecological systems are in fact interlocked.<sup>7</sup> In this connection, quantitative criteria are needed for sustainable development, which remain to be achieved.

In addition, another question which should be raised is "sustainable for what?". In this case, social scientists are required to determine the needs and wants of

the individual and society as a whole. There can be conflicts between environmental objectives. For example, consideration of a tidal barrage which produces emission free electricity but floods important wildlife habitats ensures that a political decision is inevitable (see British Government 1990). In fact, the concept of sustainable development is rooted in the realisation of these complex aspects of environmental problems. In a sense, like many other new environmental concepts, there is little new about sustainable development. The only difference seems to be in its vagueness and broad implications. That is the source of criticism.

### 3.3.3 Criticisms

When the concept of sustainable development was proclaimed to the public in 1987, both the developed countries and developing countries welcomed it. It seems very difficult to criticise the concept of sustainable development because nobody would argue against the necessity and desirability of the concept. The term even seems infallible. But its seemingly attractive simplicity and obviously self-evident meaning have concealed its inherent ambiguity (O'Riordan 1989). As Holmberg et al. (1991) point out, even in the preparation stage of the Brundtland Report, some members of the Commission insisted more concerns for cultural, spiritual and aesthetic values be included in the concept of sustainable development. Thus, there is still much work left to incorporate local people's custom and belief about their environment into the debate on sustainable development.

The meaning of the concept is so broad and vague that it now seems to have become useless as a meaningful theoretical framework. Whatever the motive of the original concept is, this one has become an excuse for both the government and businesses. As many environmentalists argue, sustainable development

may be used as a means to legitimise environmentally damaging and inequitable policies (Jacobs 1991). As Adams (1990) suggests, the most prominent element in the Brundtland Report is the focus on growth; economic growth is seen as the only way to tackle poverty.<sup>8</sup> Brookfield (1991) points out that the concept which involves continued growth is itself contradictory because the true sustainability is only possible through cessation of growth and major reconstruction of the global economy with conservationist perspective.

La Court (1990) points out two different aspects of the Brundtland Report in comparison with other studies. The first aspect is the strong link between poverty and environmental problems and the second is its optimism and appreciating the merits and contributions to the world policy makers. So La Court criticises the concept of sustainable development advocated by the WCED especially in terms of the concept of development used in the Report. He quotes the criticism by Anupam Mishra, an Indian environmentalist (La Court 1990 pp13-5):

The Report has been unable to avoid the contradictions inherent in the concept of "development". It has followed all governments and UN documents in highlighting poverty and the population explosion as the biggest obstacles to environmental conservation... People using Western scale of "standard of living" fail to understand that the real cause of environmental destruction, increasing poverty and a growing world population lies in their own prescription of a Western standard of living for everybody, and not vice versa...Anupam Mishra is angered by the Brundtland Report's definition of development - and this is indeed an important criticism, for the Brundtland Commission's own analysis is based on a certain conception of development, and thus of economic growth.

When quoting Clausen, then the president of the World Bank, who recommended that "a better environment, more often than not, depends on continued growth" (Goldsmith 1985 p2), Shiva (1992) criticises sustainable development suggested as a cure for the ecological crisis because development as economic growth and commercialisation is itself at the root of the ecological crisis in the Third World. Shiva (ibid.) further points out that sustainable



development is based on a false interpretation of sustainability: the false assumption that the economy as defined by capital and markets is primary and more basic to human well-being than nature's economy of self-renewal or people's economy of sustenance. Thus, Shiva (*ibid.* p191) concludes that "the real meaning of sustainability would make it clear that nature's economy is primary, and the money economy is parasitic on it".

O'Riordan (1988) blames sustainable development as a good excuse for both developers and environmentalists. He even speculates that it is a matter of time before the metaphor of sustainability becomes so abused as to be meaningless, certainly as a device to straddle the ideological conflicts that pervade contemporary environmentalism. The most embarrassing dilemma this concept has is that it is very difficult to align with the organisation of present political systems (Holmberg et al. 1991). Inherently conservative political systems should implement projects which would challenge their own existence requiring further change of social and economic structure. This is a real dilemma relegating the concept to merely a metaphor or a vision.

But, as Jacobs (1991) argues, many political objectives such as liberty, social justice and democracy have conflicts in understanding, and such is the case with sustainable development. There is a sharing viewpoint that the vagueness of the term is not a drawback because, "although less emotionally charged, the expression sustainable development appears to be similar to the other ideals such as freedom and justice" (Holmberg et al. 1991). From this point of view, sustainable development has still much room to debate and to be developed like those political propositions above.

Although a growing consensus is being built around the concept of sustainable development as a desirable path to development, the notion has not been

expressed within a rigorous theoretical framework. Therefore what is urgently needed is to specify the core elements of the concept, on the one hand, and to change the level of global perspective down to the local or urban level for it to be more practical, on the other. This requires a further discussion about sustainable urban development.

### **3.4 SUSTAINABLE URBAN DEVELOPMENT**

In recent years, all environmental problems are described as global problems, which require global solutions. But most of the global problems have local implications and need, therefore, local actions. All the arguments about sustainable development until now are rather global, mostly suggested as a development strategy for Third World countries. Although sustainable development requires a global vision, the place for action must be local.

Despite the fact that urban areas are obviously great consumers and polluters of the natural environment, the question of urban area in the debates of sustainable development has been neglected (Breheny 1990). Although urban areas are a threat to the natural environment, there is a growing recognition that at the same time they are a valuable resource. Considering the trend of modern urban planning, this section argues the necessity of sustainable urban development as an agenda for the future city. It proposes that the fundamental elements of sustainable urban development can be a theoretical background for the city farming study.

The main concern of this research is, therefore, sustainable development at local level. What is sustainable at one level may not be sustainable at another. Although the concept of sustainable urban development is a sub-concept of

sustainable development, it has its own unique principles which are not shared with the general conditions of sustainable development. It is these particular conditions that this chapter deals with.

### 3.4.1 Conditions of Sustainable Urban Development

Listing 27 indicators of sustainable development under the category of 1) energy, 2) ecology, 3) policy, economics and institutions, and 4) society and culture, Holmberg et al. (1991) argue that sustainable development is a process and that the indicators are not precise objectives or standards, but trends one might find in a society moving towards sustainability. Even if their suggestion seems to be plausible, it must be addressed within a more rigorous theoretical framework.

WCED (1987 p65) suggests that the pursuit of sustainable development in general requires a number of conditions:

- 1) a political system that secures effective citizen participation in decision making;
- 2) an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis;
- 3) a social system that provides for solutions for the tensions arising from disharmonious development;
- 4) a production system that respects the obligation to preserve the ecological base for development;
- 5) a technical system that can search continuously for new solutions;
- 6) an international system that fosters sustainable patterns of trade and finance; and
- 7) an administrative system that is flexible and has the capacity for self-correction.

Pearce et al. (1989) point out that three concepts of environment, futurity, and equity are integrated in sustainable development through a general underlying

theme. La Court (1990) describes six general principles which can help to understand the real meaning of sustainable development: cultural and social integrity of development, ecology, solidarity, emancipation, non-violence, and error friendliness<sup>9</sup>. Jacobs (1991) proposes three elements of sustainable development: environmental consideration in economic policy, equity both in global and intergenerational levels, and a new perspective on economic policy.

Meanwhile, IUCN, UNEP, and WWF (1991) suggest 9 principles for a sustainable society:

- 1) Respect and care for the community of life.
- 2) Improve the quality of human life.
- 3) Conserve the Earth's vitality and diversity.
- 4) Minimize the depletion of non-renewable resources.
- 5) Keep within the Earth's carrying capacity.
- 6) Change personal attitudes and practices.
- 7) Enable communities to care for their own environments.
- 8) Provide a national framework for integrating development and conservation.
- 9) Create a global alliance.

Doob (1991) even proposes, tentatively though, attributes that a sustainable people has as follows:

- 1) the ability and patience to renounce present gains for those in the future;
- 2) adequate and relevant knowledge concerning the problems at hand;
- 3) aesthetic and moral feelings regarding people and their environments;
- 4) an internal rather than an external orientation, indicating that to some degree human existence can be controlled; and
- 5) the organization of such attributes in perspective.

Despite its imaginative originality, the personal attributes of sustainability seem to be irrelevant and beyond the concern of this thesis.

The conditions can be called, in other words, a set of principles, the principles on which the framework of sustainable urban development is based. Elkin et al. (1991) suggest 4 principles on which a framework of sustainable urban development rests: futurity, environment, equity, and participation, where the first two are the primary principles. But this suggestion lacks the economic viewpoint to which other commentators give priority.

Despite the moral commitment and general consensus, the concept of sustainable development lacks a firm theoretical framework. It requires an examination of the conditions of the concept. Although there are a number of plausible suggestions about the conditions, most of them either omit significant elements or provide a vague idea. They contain a seemingly valid but confusing mix of goals and objectives adding more confusion to the already ambiguous concept of sustainable development. That is the reason why this chapter tries to create a systematic framework on which a further debate can be based.

The essential elements of sustainable urban development can be listed as follows: future, nature, participation, equity, and self-reliance. Each of which corresponds to a broader category of time, space, politics, society, and economy respectively, which form a structure of "sustainable hut" (see Figure 3.2). The five elements must be coherently connected, support each other, and co-define each other.

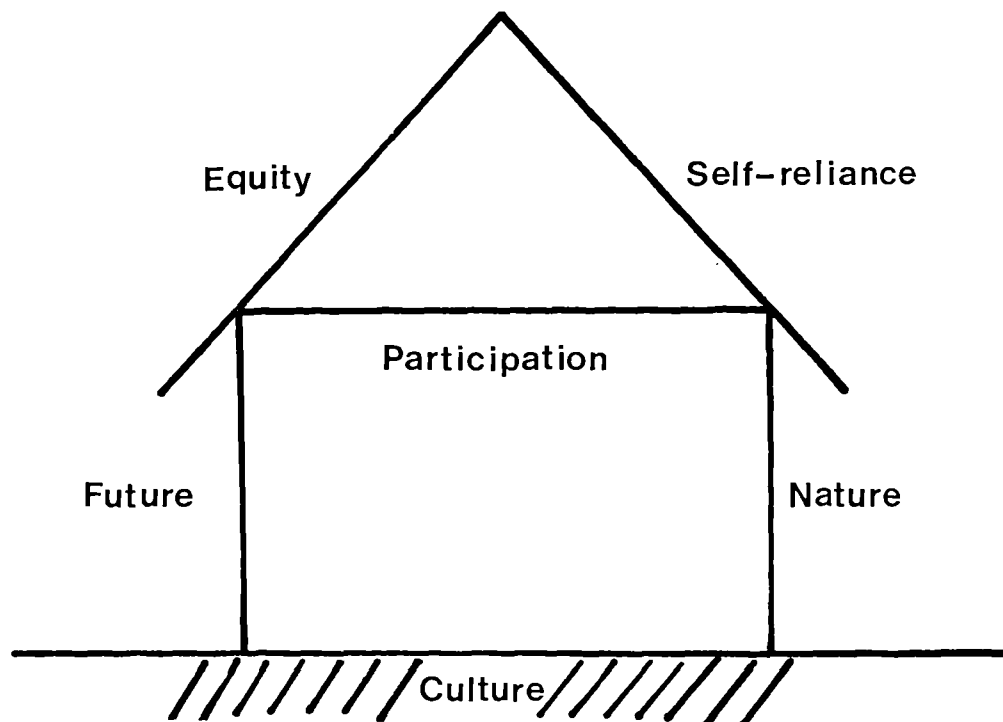


Figure 3.2 The Structure of "Sustainable Hut"

Here, the elements of equity together with self-reliance make the roof. The roof is supported by a beam of participation. The roof and the beam are again supported by two columns of future and nature. Finally, all these are supported by the ground of local culture. The roof with two columns without a beam would be called a shelter, which gives a temporary space to live in, but not sustainable. A beam and two columns make a frame, which still gives a place to live in, but not reliable in terms of heat, rain and other harsh weather. The elements are an integral part of the "sustainable hut". Without any one of the elements, the hut either collapses or no longer can be called as a hut. It should be made clear that a hut is not a house which has rooms, windows and corridors, for example. The analogy of "sustainable hut" is employed to show a theoretical framework of the concept. It can be further refined and developed for a practical implementation. A more refined form of the hut will be developed at the end of this chapter.

One of the most important purposes of the analogy is to enable the forming of priorities. Usually, the consideration of any development project starts from socio-economic factors through to political points and only then reluctantly deals with environmental aspects. But the principles of sustainable urban development require a different approach. Although social and economic considerations are important, priorities should be given to the long-term planning and environment, with political consensus being highly important for achieving social and economic stability. On the other hand, what the structure of the "sustainable hut" emphasises is the importance of interrelationships among each element. Particularly, the element of participation as a role of linkage is vivid: it mediates future and nature elements; it links society and economy elements; and it relates society and future, and economy and nature.

The reason why culture is not included in the elements must be explained here. As La Court (1990) notes, the diversity of cultures on Earth is the result of many centuries where people have adapted themselves to the environment, and this process proves to be the best guarantee for sustainable development. Cultural diversity is like biological diversity. Therefore just as biological diversity secures the workings of life-support systems, cultural diversity safeguards the operation of social systems. The thesis takes, as given, that any activity presupposes implicitly the existence of local culture which conditions the activity.

Before proceeding this section, it must be understood that the elements and the criteria mentioned below have nothing to do with variables, indicators, or indexes. Because the aim of the thesis does not lie in the generalisation and, therefore, the pattern of findings, as Pawson (1989) argues, measurement through variable analysis is meagre and unsatisfactory without theory particularly in pursuit of underlying mechanism and structure which connect

the causal sequences. Moreover, when quantified, the internal relations which constitute a structure become indistinguishable from purely formal and contingent relations (Sayer 1992; for details, see Chapter 2).

The guideline to decide three criteria for each of five elements is based on common sense. Each criterion cannot be weighted or quantified because nobody can judge which criterion is more valuable than the other. Even if priorities are given between elements, that does not necessarily mean that a particular element is more valuable than the other because each element has a family value, where nobody can say who is more valuable than the other. The criteria are sub-principles which would make it possible to decide whether a certain activity or project conforms to the conditions of sustainable urban development.

The significant difference between sustainable urban development and other urban development strategies lies in the time dimension. Of course, all kinds of developments presuppose future. But sustainable urban development has a longer time span, at least a generation. Moreover, the term "sustainable" itself implies a continuum of time; not just future but a continuum of past, present and future. That is the essence of this concept and, therefore, that is the reason why the past, the present and the future should be considered in the element of future. Consideration of this leads to the first element of sustainable urban development: future.

### **3.4.2 Future (Time)**

Even at zero growth, the continued consumption of scarce resources will inevitably result in exhausting them completely. The point is to consume less and less, there being no other way of conserving the available reserves for



future generations (Gorz 1980). In any human activity, argue Elkin et al. (1991), the effects of that activity on the ability of future generations to meet their needs and aspirations must be considered. As Jacobs (1991) notes, the point of sustainability is to establish a standard for environmental protection, and this inevitably means protection over time. As mentioned above, sustainable urban development implies a continuum of time; a continuum of past, present and future. First of all, the aspect of future generation is considered.

#### 3.4.2.1 Future Generation

The issue of obligations to future generations is a starting point in discussing sustainable development. It is rather an issue of ecological ethics for it is concerned with obligations to the future people (Attfield 1991). For the first time in history, policy-makers of all nations face the awkward question of how to defend the future generations' benefit while securing the present generation's welfare. As Attfield (1991 p90) argues, "we have obligations wherever we can prevent suffering or misery to contemporary strangers, however distant in space, suggests that we have similar obligations to future strangers, however distant in time: for distance in time is just irrelevant as distance in space".

Kavka and Warren (1983) insist that future generations can be represented in a democratic political system. Moreover, to the question why future generations should be represented, they argue that:

if the moral reason for including the interests of future generations is that current government actions will seriously affect their welfare, then to be consistent, the interests of *all* those seriously affected by such decisions must be represented (Kavka and Warren 1983 p26).

Future generations will need the same clean air and water, and fertile land as on which the present generation depends. There is a new recognition that the present generation borrows resources from the future generations to meet present needs. However, as Jacobs (1991) points out, some members of "future

generations" actually are alive today: they are children. The middle-aged men's preferences are the standard for making cities while children's needs are often neglected (Short 1989). Children, as well as future generations, must be taken into consideration in planning for the humane city. Therefore one of the criteria for the element of future must be that an activity should not compromise the future generations' interest. It is the criterion of "*future generation*".

#### 3.4.2.2 Present Security

How future generations will conceive of their needs may be beyond the imagination of the present generation. The weakness of the current argument about the concept of sustainable development seems to lie in the overemphasis on the future generations' needs. The thesis now argues that without securing the present generation's welfare, the consideration of the future is baseless.

Roy Rappaport (1986; see Devall 1988), in an essay "Restructuring The Ecology of Cities," suggests the goal of restructuring cities is to focus on creating a social organisation which can continually respond and adapt to changing circumstances. Here the meaning of adaptation is the ability of living organisms to face short-term fluctuations and long-term changes in their environment. Without ensuring the continuation of the present generation's activity in the short-term time scale, say 10 or 20 years, the discussion about sustainable development for future generations is meaningless.<sup>10</sup> The pitfall of most of present arguments concerning sustainable development is in the fact that they are too preoccupied with the longer term, say 100 years. The author argues that sustainable development is not only about an obligation to future generations but also about an obligation to the members of the present generation who have a future. Therefore the second criterion in this category of element must be the security of the short-term continuity. This criterion is called "*present security*".

### 3.4.2.3 Elders' Role

As Popper (1961) argues, people cannot predict precisely what will happen in the future in society. Future is not the reproduction of the present, but a result of people's will to achieve objectives. In traditional societies which have preserved their ability to endure, the generations are the continuum. Age is valued for its experience, and elders deserve respect. The elderly should be respected as people with a meaningful role to play in society.

As Lewis Mumford (1968 p41) notes, "the aged find their lives progressively curtailed and meaningless while their days are ironically lengthened". But surely the elderly make many contributions. By defining and limiting people by age, one of the great resources is neglected, and that is not a way of sustainable development (Bell 1992). Therefore old people with accumulated knowledge, talent and wisdom must be respected and considered as a resource. The future lies in the past and the present. This consideration leads to the third criterion of the future element: "*elders' role*".

This criterion is a decisive one, together with the previous criterion of "present security" in holding back the somewhat radical orientation of sustainable development. That is to say, even if sustainable development was suggested as an urgent response to the perception of environmental crisis, it still remains as a reformistic idea for its own conceptual limitation.

### 3.4.2.4 Criteria of Future

The criteria discussed above can be summarised as follows:

- a) An activity should not compromise the future generations' interest.
- b) The safety of the short-term future for the present generation should be secured.
- c) Old people should be respected and considered as a resource.

The "sustainable hut" needs a pair of pillars. The element of future is one of them. The other is the element of nature. These two elements correspond, in a wider context, to time and space respectively. They are the basic conditions for sustainable urban development. But they have, in many development projects, been largely neglected. This important topic requires further discussion.

### **3.4.3 Nature (Space)**

It seems that urban environmental problems are originally caused by the concentration of population into cities. People make environmental problems; not air, water, and soil by themselves. Therefore urban environmental problems are a concern not only for natural science but also for social science. Urban environments, in short, represent the close link between the economic functioning of cities and a view of the city as an ecosystem (see Douglas 1983).

As Elkin et al. (1991) suggest, sustainable urban development must include nature as integral to the city, and cities must not disrupt the workings of the natural ecosystems. After reviewing many references to the urban natural environment, this section identifies three essential criteria for sustainable urban development: life-support system, nature conservation and pollution reduction.

#### **3.4.3.1 Life-support system**

What links the issue of pollution and that of conservation is the ecosystem, or in a broader term, the life-support system. Plant cover provides the basis of all food chains, mediates water cycles, stabilises microclimates, and protects the living soil. Legions of soil micro-organisms, and of anaerobic microbes in the shallow muds of sea floor and swamp, work ceaselessly to recycle decaying matter back into the nutrient system (Myers ed. 1985). This is called the life-support system. Life-support systems are the ecological processes that keep the planet fit for life.<sup>11</sup>

Los Angeles, for example, devotes 65 percent of its land area to the car's needs, and urban planners ordinarily set aside a quarter to a third of the land area of a city for the automobile (Morris 1982). By paving over large areas of soil inside the city, the ground's ability to absorb and retain rainfall is reduced and this increases the difficulty of treating the torrential flooding. This activity is surely contrary to the healthy workings of the earth's life-support systems. Soil is fundamental for both agricultural production and residing places for plants which contribute significantly to the earth's life-support systems (see Tivy 1982).

On the other hand, biological diversity is a necessary condition for ensuring the life-support systems. So disturbance of any more land should be forbidden, and creation of exotic monoculture, be they golf courses, wheat fields, or tree plantations, restrained everywhere. Priority should be given to making the already huge areas occupied by humanity more hospitable to other organisms (Ehrlich Paul. see Myers ed. 1985). Without a viable ecosystem, life cannot be sustained, society cannot function and it will be impossible to realise the quality of life (Milbrath 1989). Therefore to secure the "*life-support system*" is an essential condition for sustainable urban development.

#### **3.4.3.2 Nature Conservation**

Not only the professionals such as landscape architects, planners, and park managers but also ordinary people are now increasingly aware of the need to conserve nature in cities.<sup>12</sup> With a high urbanisation rate and with many city dwellers unable to reach the countryside, it is suggested that nature should be actively conserved in cities to provide the citizens with refreshment from the urban life so that it is not the experience of the few but of the many. Another reason for the surge of interest in urban nature conservation is that there is a

growing realisation that rural habitats are dwindling. Emery (1986) suggests 5 reasons for urban nature conservation:

- 1) **Personal benefits:** Involvement in the urban nature conservation projects leads to feelings of pride and achievement, learning new skill, getting to know people better, developing community spirit. People enjoy the physical exercise and general feelings of freedom.
- 2) **Educational benefits:** Children can appreciate the beauties and complexities of growth, behaviour, competition between species, and changes in time and season, while becoming familiar with the natural environment.
- 3) **Environmental benefits:** Sites of vacant urban land have the potential to be used as a resource for urban dwellers. Those waste sites colonised by plants and animals can enrich the quality of the local environment.
- 4) **Benefits to wildlife:** The extremes of rubbish dumping on one hand and excessive tidiness on the other can both be detrimental to wildlife. Clearing up litter and leaving some of park grassland unmown can both help wild plants and animals.
- 5) **Economic benefits:** The rate at which people move away from an area should decrease if it becomes more pleasant to live there. And it can help young unemployed to get benefit from involvement in urban nature conservation projects.

On the other hand, Kaplan (1984) suggests that urban natural environment can provide a setting for restorative experiences like sleep, both physically and conceptually. So trees and flowers, landscaped areas, and even very small parks provide opportunities for mind-filling moments (Kaplan 1984).

In cities, there are public parks and green areas as well as "unofficial" open spaces (Duhme 1983). From the ecological point of view, the conservation of these unofficial open spaces such as disused gaswork sites, waste land, and marshes is as important as the management of urban parks. With many unrecognised benefits such as no maintenance costs, unrestricted access by the public, high ecological value and a diverse and attractive visual appearance, these unofficial open spaces should now be included in the city development plan as sites of urban nature. There is also growing interest in urban wildlife (see Weightman and Birkhead 1986; Smyth 1987). Despite the upsurge of

interest in wildlife protection, few people living in cities recognise the natural world on their doorsteps. But there are wild plants, insects, birds, and even mammals living on the open spaces in cities.

In terms of development control, there is a need to move further away from scientific criteria in assessing the natural value of sites and to accept public accessibility and enjoyment as a major reason for restricting development on sites of natural interest (Cole 1983). It is the criterion of "*nature conservation*".

#### 3.4.3.3 Pollution Reduction

Cities have done much to pollute the environment and to affect the lives of wildlife and natural habitats as well as citizens. Cities are the source as well as the locus of all sorts of pollution. Pollution is waste harmful to other organisms; so that to reduce the side-effects of an organism's waste output is one of the most important criteria of sustainable development. Commoner (1971 pp40-1) well points out the essence of pollution noting that "one of the chief reasons for the present environmental crisis is that great amounts of materials have been extracted from the earth, converted into new forms, and discharged into the environment without taking into account that everything has to go somewhere. But nothing goes away." Carson (1962) considers the central problem of our age to be the contamination of man's environment with harmful substances, and warns that interfering with the natural defence system of the environment by using chemicals like pesticides and insecticides, people have ignored these chemicals' effect on soil, water, wildlife, and man himself.

Particularly in the case of modern farming system, the massive use of chemicals and fertilisers has seriously affected the natural process of nitrogen fixation by damaging soil bacteria. As a consequence, crops are losing their ability to take up nutrients from the soil and becoming more and more addicted to synthetic

chemicals (see Capra 1980 p275). In this way, farming inevitably disturbs wildlife and natural systems during production. While organic farming reduces the pollution level considerably, it can never eliminate all effects and all risks. However, a lot of research shows that organic farming gives a number of clear advantages to wildlife protection, soil health, and reducing nitrate leaching (Dudley 1991).

Every effort should be made to reduce existing level of pollution. Even the levels seen as acceptable for human health may still be harmful to the fine workings of urban ecosystems. Therefore to reduce the pollution level of air, water, and soil is fundamentally important in the element of nature for sustainable urban development. It is the criterion of "*pollution reduction*".

#### 3.4.3.4 Criteria of Nature

In terms of nature, the next three criteria are necessary conditions for sustainable urban development.

- a) Nature's life-support systems in cities must be improved.
- b) Urban green spaces and natural wildlife must be conserved.
- c) Discharge of harmful pollutants and introduction of some materials which do harm to the nature's ecosystems in cities must be controlled.

Now that the columns of a hut are prepared, the next step to build a hut is to set up a beam. Political consensus represented by participation is a beam which supports the roof of society and economy. Political consensus plays a role of linkage. This element links future and nature, and society and economy. It puts together the disorganised elements to give the hut a shape. A beam is invisible from outside, therefore looks unnecessary. But without a beam, a hut simply can not be sustainable. That is the importance of the element of participation, which is the object of the following consideration.



### 3.4.4 Participation (Politics)

The term democracy is used to impart many and often contradictory meanings. But most are concerned with the characteristics of political systems. Even if there are many definitions for democracy, basically the concept can be categorised into two: public contestation and right to participation (Dahl 1971). Vanhanen (1990) introduces a lot of methods to measure the level of democracy, but most of them, including his own, are concerned only with political systems and he is somewhat obsessed with quantification.

However, the focus of the thesis is not on a democratic political system but on a democratic way of participation.<sup>13</sup> As already mentioned in section 3.4.1, the pursuit of sustainable development requires, among other things, a political system that secures effective citizen participation in decision-making and an administrative system that is flexible and has the capacity for self-correction (WCED 1987). Moreover, environmental movement can be seen as a concern for more democratic participation in decision-making in the issues of natural resources development and land use, for example.

The fastest feedback occurs where the person who suffers from degradation is in a position to control it directly. This is why private ownership of land produces a faster response than common ownership; and why local community control works quicker than distant bureaucracies (Harrison 1992). Therefore one of the most crucial points about the element of participation in sustainable urban development must be the aspect of community. Community is used in a variety of ways: sometimes it means the people of a local administrative unit; it is often used to indicate a cultural and ethnic group; and it usually means a local urban or rural area (see IUCN, UNEP, WWF 1991). In this thesis, the term "community" is used to mean a particular neighbourhood in an urban area.

#### 3.4.4.1 Community Decision-making

Democracy consists of at least two elements: representation and participation (Porritt 1984). What matters here is the participation. As O'Riordan (1981 p256) well points out, "the inevitable thrust of the participatory strategy is toward wider power sharing and the politicisation of citizen awareness into new democratic forms, particularly at the local level where the quality of the environment really is a matter of immediate interest and concern". In terms of restoring power to the community, argues Porritt (1984), nothing should be done at a higher level that can be done at a lower. Now the question is who decides the proper level and how.

Until now the traditional mechanism has excluded citizens from the decision-making. The quality of life can only be realised when fundamental decisions are taken by the people who are affected by them. Popular participation and decentralisation of the processes of formation of the collective will are essential because "the market + administration" cannot satisfy a whole series of collective needs (Dews 1992 p73).

La Court (1992 p121) insists that:

communities cannot afford to wait until the outside world solves their problems. The outside world, international and national authorities, should not have the power to solve a community's problems. The power from within the communities themselves should grow. The role of the state should be to protect the interests of the communities, safeguarding the market-place from the interests of the establishment.

Nowadays people want to play a part in shaping their own surroundings (O'Riordan 1981). Development proposals produced by remote government officials and development agencies often ignore the grassroots management systems. Instead they often try to transplant management systems developed in very different local circumstances (Myers 1985). Without power-sharing,

participation is meaningless. So, there is a need for local people to have power to make a decision something that is crucial to their life. In short, decision-making should be as local, open and participatory as possible. This is the criterion of "*community decision-making*".

#### **3.4.4.2 Community Information**

If an activity involves a community related work, it usually needs a positive participation of all community members concerned. There should be some actions, or preconditions to determine whether it is participatory activity or not: media must be free to report protests; there must be free access to official information; there must be a free elections with multiple candidates; and there must be an independent legal system with equal access for the poor (Harrison 1992).

To facilitate the community decision-making, one of the most important preconditions is free access to information. As one of the criteria for participation, suggests O'Riordan (1981), there should be some degree of access to information through statutory provisions, environmental reviews, public hearings, and community discussion. Therefore the overlapping of traditional information flows with community information networks should help to integrate basic processes of judging, acting, experimenting, experiencing, for example (ibid.).

Friedmann (1973) suggests rather complex variables for the conditions of social development in some regional communities, in which information transfer is listed as one of facilitating variables. He divides it into two levels: individual and collective levels. He points out at the individual level that the educational level of local populations and the number of professionals in the population are the determining factors in the process of innovation, facilitating or hindering

the transfer of information. At the collective level, Friedmann emphasises that in the presence, size and efficiency in carrying out their local mediating role, the centres of higher education such as universities and technical schools play a significant role in the potential of social development of a region (ibid.). The number and types of mass media available to a community and the size of their audience are added to this category as relevant indicators of social development potential. It can be called "*community information*", which is the second criterion of the element of participation.

#### **3.4.4.3 Government Incentive**

In most countries, central and local government policies are composed of a variety of incentives and disincentives designed to achieve certain goals (Brown et al. 1992). However, in many cases, governments spend money to support environmentally unsound projects. Reshaping economies to avoid the breakdown of life-support systems requires positive incentives of governments. Particularly in urban areas, nearly every activity is related to central and local government regulations or rules. Those institutional systems both restrain and enable a certain activity. That is the reason why government incentives are so important in achieving sustainable urban development.

A strong, intervening state emerges as a necessary, but not sufficient precondition for an ecologically sound development. What matters most is the development aims and strategies of the government (Stokke 1991). As the Brundtland Report (1987) well points out, achieving sustainable development requires changes in institutions: not only organisations but also laws, customs, and practices. At present, those responsible for managing natural resources and those responsible for the environment are institutionally separated from those responsible for managing the economy. This state of affairs should be amended for sustainable urban development.

A sustainable society depends on the commitment of individuals. But they can be either inspired by government incentives or restrained by penalties. Local authorities can provide financial and technical supports to community environmental actions. Sustainable development cannot, in reality, be implemented without such a governmental system. There is a need for intimate relationships between local government and the community. So the criterion of "*government incentive*" is required.

#### 3.4.4.4 Criteria of Participation

Three criteria are required to fulfil the elements of participation for sustainable urban development.

- a) In a matter of community development, community members must participate in the decision-making process.
- b) Free communications to improve exchange of information, skills and technologies must be secured.
- c) Effective and intimate relationships between local government and the community must be developed.

The three criteria are the terms of reference to judge whether an activity conforms to the element of participation. Now that the fundamental frame of a hut is prepared, the next step is to make a roof. A roof consists of two sides. Likewise, the "sustainable hut" has two sides to its roof: equity and self-reliance, corresponding, in a wider context, to society and economy respectively. These two elements contribute to the protection and safety of human life. The next section deals with one of the fundamental aspects of social integration for sustainable urban development: equity.

### **3.4.5 Equity (Society)**

Malthus (1970) insists that inequality is inevitable: every piece of matter must have an upper and an under side, and all the particles cannot be in the middle. Inequality is multi-dimensional. It prevails in classes and sexes in social and economic system. Smith (1979) distinguishes between equality and equity: equality means every person receiving the same treatment irrespective of who or where he or she may be; while equity means fairness which implies that people may be given differential treatment if this is deemed fair or just. On the other hand, sociologists' main concern is about inequality rather than equality<sup>14</sup> (Turner 1986). In this section, the term "equity" is used to include similar concepts such as fairness and justice.

Elkin et al. (1991) argue that inequity is not only a concern in its own, but also it tends to include inefficient use of resources and can lead to environmental degradation and resource depletion. Furthermore, inequity exists between places at the local, regional, national and global level. The point is, at every level, inequity has some impact on the environment (WCED 1987). In this section, three aspects of equity are considered: equal opportunity, distributive justice and civil disobedience.

#### **3.4.5.1 Equal Opportunity**

As the Brundtland Report (1987) clearly shows, the effects of poverty in the Third World are directly related to the ecological degradation. Therefore more equal opportunity to resource uses is a precondition for the achievement of sustainable development. The difficulty is that citizens are not equal in their service needs or preferences. Thus, demonstrating that they receive equal services indicates little about how well they are served (Pacione 1990).

Elkin et al. (1991) suggest that increased access to economic and political power for the least powerful in society is the necessary but not sufficient condition in solving social and environmental problems. This implies that the disadvantaged must be given an equal opportunity of access to housing, employment and facilities. Opportunities to access to some common resources must be given; there must be no hindrance to the entry of newcomers unfairly; there must be no sexual, age or any other discrimination. Local people should have equal opportunities to common resources. It is called the criterion of "*equal opportunity*".

#### 3.4.5.2 Distributive Justice

This part deals mainly with Rawls's theorisation of justice. Rawls (1971 p3) argues as follows:

Justice is the first virtue of social institutions, as truth is of systems of thought. A theory however elegant and economical must be rejected or revised if it is untrue; likewise laws and institutions no matter how efficient and well-arranged must be reformed or abolished if they are unjust. Each person possesses an inviolability founded on justice that even the welfare of society as a whole cannot override. For this reason justice denies that the loss of freedom for some is made right by a greater good shared by others. It does not allow that the sacrifices imposed on a few are outweighed by the larger sum of advantages enjoyed by many. Therefore in a just society the liberties of equal citizenship are taken as settled; the rights secured by justice are not subject to political bargaining or to the calculus of social interests. The only thing that permits us to acquiesce in an erroneous theory is the lack of a better one; analogously, an injustice is tolerable only when it is necessary to avoid an even greater injustice. Being first virtues of human activities, truth and justice are uncompromising.

As Harvey (1973 p97) points out clearly, "if we pursue efficiency and ignore the social cost, then those individuals or groups who bear the brunt of that cost are likely to be a source of long-run inefficiency". Moreover, even if it is possible to increase production, there is a question about how the fruits of that production will be distributed among those who cooperate in the process (Harvey 1973). Some degree of unjustness in the provision of public services is usual in all cities because the relationship between needs and resources is a dynamic one

and, thus cannot be balanced easily. Pacione (1990) argues that although there are many hypotheses like "race preferences" or "class preferences", which suggest that economically disadvantaged groups and areas are discriminated in public services provision, the situation of inequality seems to be in general unpatterned.

There are many studies arguing that environmental degradation and social injustice are two sides of the same coin (see McCormick 1989). In many countries, without more equitable distribution of land, for example, sustainable farming and forestry practices will not be possible (see Brown et al. 1992). There is an equity aspect for land speculation, for example: land value formulated or created by public expenditure should be distributed to the public in general and not be exploited by landowner alone. However, there is no clear indication how much the land speculation induces the inequality of income distribution. From this point of view, equity, in terms of social justice, must entail a just distribution. It is the criterion of "*distributive justice*".

#### 3.4.5.3 Civil Disobedience

The relevant consideration which completes the arguments about equity is the "*civil disobedience*" set out again by Rawls (1971). The previous two criteria are, from the actor's point of view, just given or at the mercy of institutions. There must be a way to express the actor's disapproval through protest or demonstration at a socially acceptable level. Rawls (1971 p364) defines civil disobedience as "a public, nonviolent, conscientious yet political act contrary to law usually done with the aim of bringing about a change in the law or policies of the government". By acting in this way one addresses the sense of justice of the majority of the community and declares that in one's considered opinion the principles of social cooperation among free and equal men are not being respected.



By engaging in civil disobedience a minority forces the majority to consider whether it wishes to have its actions construed in this way, or whether, in view of the common sense of justice, it wishes to acknowledge the legitimate claims of the minority (ibid.). A further point is that civil disobedience is a public act. Not only is it addressed to public principles, it is done in public. It is engaged in openly with fair notice; it is not covert or secretive. For this reason, 'among others, civil disobedience is nonviolent'.<sup>15</sup>

Civil disobedience is one of the stabilizing devices of a constitutional system, although by definition an illegal one. A general disposition to engage in justified civil disobedience introduces stability into a well-ordered society, or one that is nearly just (Rawls 1971 p383). The theory of civil disobedience supplements the purely legal conception of constitutional democracy. Thus to the legal forms of constitutionalism one may adjoin certain modes of illegal protest that do not violate the aims of a democratic constitution in view of the principles by which such dissent is guided (Rawls 1971 pp385-6). This consideration suggests that local government inform all the people likely to be affected by a planned activity and grant them equal access and due process in administrative and judicial proceedings (see La Court 1990). It is the criterion of "*civil disobedience*".

#### 3.4.5.4 Criteria of Equity

The consideration above leads to the next three criteria.

- a) Equal opportunities to common resources must be provided.
- b) Distributive justice must be achieved.
- c) Rights should be given to protest unfair systems.

A side of roof is now supported by a beam which is supported by two columns. The construction of the other side of the roof, that is self-reliance, completes the

"sustainable hut". The reason why the economic element is dealt with last is not because it is insignificant; although everything is well prepared, if there is no fulfilment of economic condition, it is still not to be called a "sustainable hut". This requires the discussion of the final condition of self-reliance.

### **3.4.6 Self-Reliance (Economy)**

Before proceeding to this part, it must be noted that there is a difference between self-sufficiency and self-reliance. While self-sufficiency refers to a state of absolute economic independence, self-reliance means a state of relative independence (Bunyard and Morgan-Grenville 1987). The former would be difficult but not impossible to achieve; the latter is both achievable and desirable. Therefore this section discusses the subject of self-reliance, not self-sufficiency.

A green society is a post-industrial one. In this society, a principal goal of economic policy is to increase self-reliance particularly for local economies (Jacobs 1991 pxvii). Self-reliance dealt with in this thesis is not the old, pre-industrial self-sufficiency. The self-reliance meant here is post-industrial one: about a person who lives a modern life in the big cities, and who wants to lead a better life (Seymour and Seymour 1973). O'Riordan (1989) points out that at the heart of the sustainability debate is the essence of global communalism, that is an ecological basis to economies and local self-reliance. However, the primary benefit of local self-reliance is not just economic but it is also psychological and social.

A fundamental restructuring of the rules and practices that shape present economic activity is necessary for preventing self-destruction of nature's life support systems (Brown et al. 1992). As Elkin et al. (1991) argue, to ensure that

economy in the use of one resource in one activity does not lead to increased depletion or degradation in another is central to sustainable urban development. Therefore an economical city is not a city which produces much and grows very fast but one which uses efficiently such resources as energy, minerals, land and natural resources. To achieve this, there must be at least three criteria: local trade, energy saving and self-containment.

#### **3.4.6.1 Local Trade**

As Porritt (1990) points out, the green alternative is not just about the environment but also about an alternative economic strategy that is based on managing the natural wealth to meet human needs on a sustainable basis. The conventional theory of economic development is simple: the more a country exports, the greater its ability to import the goods and services it needs, and the more easily it will attract new investment; this will increase economic growth, which will in turn raise per capita income as the resulting wealth trickles down to the poor and the needy (Porritt 1990). The same logic can apply at a local level. A green approach to this problem can be challenged by devoting the productive resources of the local area to meeting the needs of the local residents, therefore ensuring as much of that trade as possible is local rather than national and international.

This does not suggest that total self-sufficiency is possible and desirable; not all the supplies for the industries can be obtained from the city itself, and not all their products will be sold in the city. One of the aims of this criterion is to reduce the further depletion of ecological capital on which the future welfare depends. Huge amounts of water, fuels, and food have to be imported to keep the city alive. So the city was transformed from a self-sufficient community into a parasitical creature, dependent on great public works for its survival.

Distribution lines became lengthened. Particularly the farms became ever more productive, but the amount of energy required to get the vegetables to market rapidly increased so that by the mid-1970s people were consuming more energy to transport the produce than to grow it (Morris 1982). The typical distribution lines of some agricultural produce in South Korea are as follows (Jeong 1992):

- a) In the case of red pepper or garlic, 94% of total production in South Korea is distributed through many merchants. The sequence is: producers -> collectors in production places -> consignment wholesalers -> retailers -> consumers (5 stages),
- b) In the case of chinese cabbage and radish, 95% of the total production is delivered through many merchants. The sequence is: producers -> collectors in production places -> consignment wholesalers -> intermediate retailers -> retailers -> consumers (6 stages).

The origins of what people consume and the destinations of what people produce are very obscure. But rising energy prices encourage people to develop integrated systems, in which production, consumption, and disposal are only points on a continuum (Morris 1982). That is the criterion of "*local trade*".

#### 3.4.6.2 Energy Saving

From the sustainable urban development point of view, an economical city is one which makes efficient use of such resources as energy, land and natural resources. One way of achieving this goal is by recycling the resources (Elkin et al. 1991). Meier's study into making the Third World megacity, here the case of Manila, environmentally more benign suggests good ideas about making cities more energy-saving (Meier et al. 1981; see also Meier and Yang 1982; Friedmann 1992):

- \* Irrigated urban fringe for market produce. Six to ten crops per year. Accompanied by small livestock development.
- \* Complex of tall trees, fruit trees, and tubers around human dwellings that are built at two to three times village densities.
- \* Adaptation of traditional building forms.
- \* Principal road network, surfaced for low-friction traffic, maintains continuous bus traffic; side roads encourage three-wheelers, bicycles, and carts.
- \* Integrated, solar-energised neighbourhood water centres that provide water for baths, food preparation, laundry, artisanry, toilets, and waste removal.

On the other hand, a way of energy saving can be achieved in urban area through the rational use of natural resources (see Myers ed. 1985). The challenge lies not so much with technical fixes, but with the approach to the world. For the earth is a closed system, most resources have to be recycled. The term waste itself is completely foreign to nature (Finke 1989). Waste produced in the system should be disposed of in the system. All this recycling also helps cope with the problem of waste disposal. Recycling is basically an economic criterion which helps, in the end, life-support systems to work properly.

Girardet (1990) suggests that sustainable urban development implies closing the circle of the urban metabolism: minimising inputs into cities and maximising the level of recycling. Goldsmith (1988) insists that in a homeotelic<sup>16</sup> economy all resources must be recycled because economic growth is a one-way process with the biosphere being systematically transformed into the technosphere that produces waste, a process that cannot continue indefinitely. The distance between home and workplace should be as short as possible to save both human energy and natural resources; the technology and the tools should be intermediate; the technologies should be easily available or easily learnable. These principles lead to the criterion of "*energy saving*".

#### 3.4.6.3 Self-containment

Another point in self-reliance is that a scheme or a project cannot be economically sustainable with large participants, or populations. There must be a mechanism to control the proper number of the members for an activity to be economically viable.<sup>17</sup> As already mentioned, a community has its own carrying capacity in terms of population (Munn 1989). The population explosion is related to the world environmental crisis, but is also relevant at a local level.

As far as cities are concerned, to "contain the cities" is a realistic principle to make megalopolis to be a livable place with cultural richness and efficiency (Devall 1988). So Devall insists that "contain the population of cities so they do not disturb the habitat of threatened species; contain the pollution; contain the power of urban elites and intellectuals; and contain the materialist ideology and nihilism associated with the secular city" (ibid. p189). This consideration leads to the third criterion of "*self-containment*".

#### 3.4.6.4 Criteria of Self-reliance

The element of self-reliance is composed of three criteria:

- a) Productive resources of local areas should be devoted to meet the needs of local residents.
- b) An activity should be energy-saving and energy-efficient.
- c) The number of participants in a social activity must be contained under a certain carrying capacity.

In the previous sections, the author has examined various criteria in order to establish a theoretical framework for sustainable urban development. The next section suggests a model that seems most appropriate for this research.

### 3.5 MODEL SETTING

The concept of sustainable urban development is composed of five elements of future, nature, participation, equity, and self-reliance, where each has three criteria respectively. In this case, if any one of these five elements is absent, an activity is not sustainable. However, if at least a criterion of each element remains to be identified in all the five elements, an activity can still be called sustainable even though it is in its very weak form. Each element with three tiers of criteria represents its resilience.

The value of this theoretical framework lies in its usefulness or possibilities. The usefulness of this model is to give a systematic explanation of an activity when judging whether it conforms to the principles of sustainable urban development. Integration is the key in this model. The model provides a single set of consistent objectives for sustainable urban development (see Figure 3.3). A refined form of the model of the "sustainable hut" is shown in Figure 3.4. There are a variety of imperfect forms of the model. Figure 3.5 shows three examples among many possible ones. However imperfect it may be seen, if any one of the criteria for each element is left in all the five elements, it is still better than any other totally unsustainable forms where an element with its three criteria is entirely absent.

The level of sustainable urban development ranges from the most perfect one which satisfies all the five elements with all the three criteria each to the least perfect one which satisfies all the five elements with a single criterion each. If an activity fails to fulfil all the three criteria in any one of the elements, it simply cannot be classified to conform to the conditions of sustainable urban development because, in this case, either the hut will collapse at once or can only endure for a short time. The model of the "sustainable hut" is suggested as

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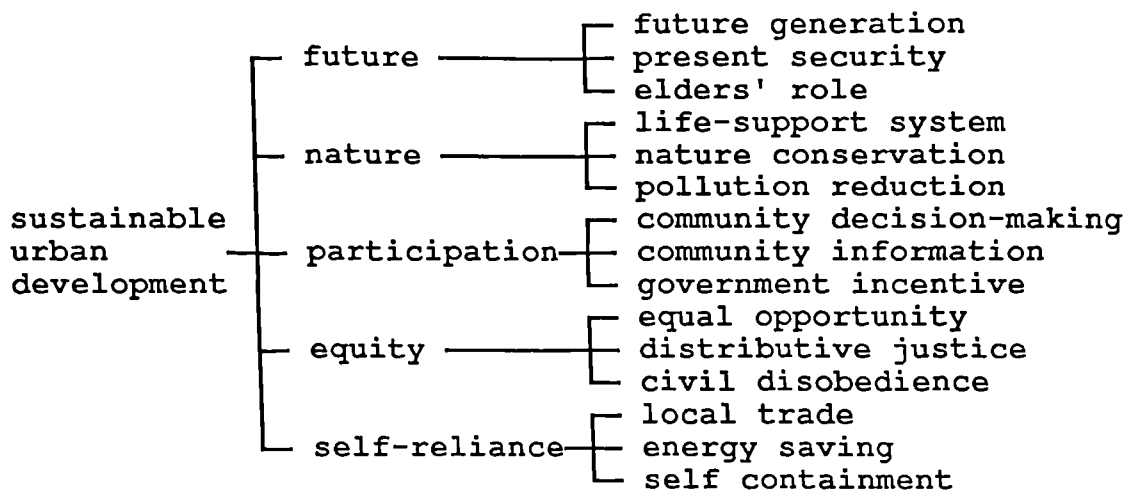


Figure 3.3 The Criteria of Sustainable Urban Development

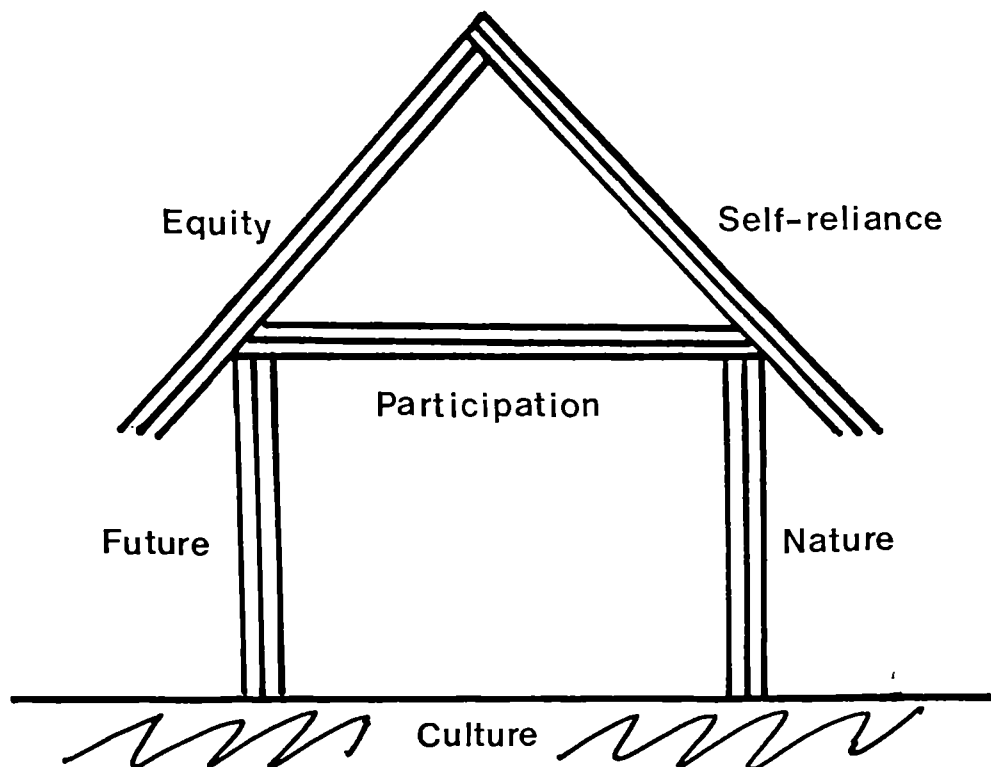


Figure 3.4 The Model of the "Sustainable Hut"



a theoretical framework with which the thesis tries to examine the existential hypothesis that there exist the elements of sustainable urban development to which city farming conforms. Those five elements with three criteria each will be examined through observations and interviews with city farmers and government officers concerned. The detailed items of questions are included in the Appendix A.

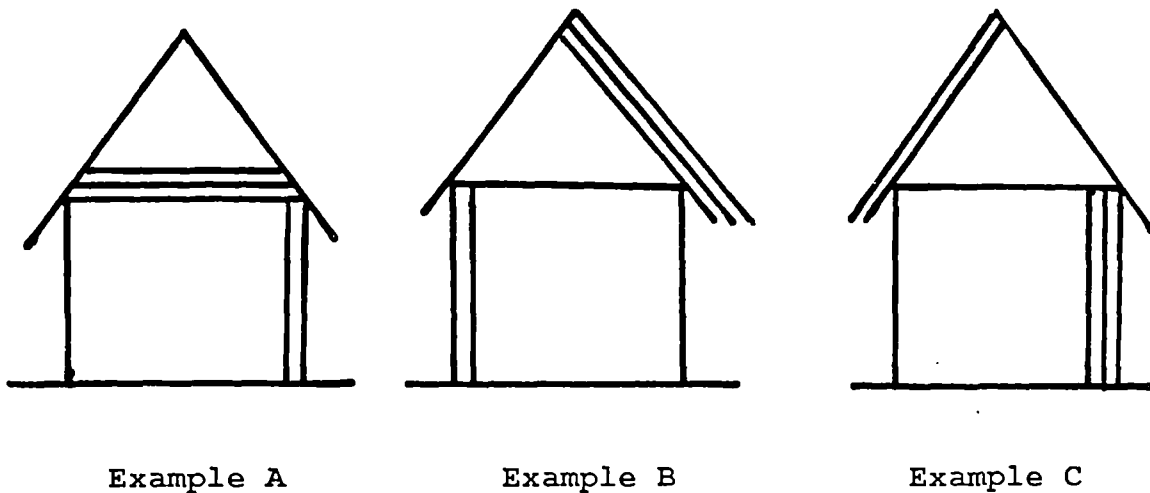


Figure 3.5 Examples of the Imperfect Forms of the Model

If planning is an exercise of development, then sustainable development necessarily requires a planning involvement. Planners are architects to construct the sustainable hut trying to make it as near perfect as possible. Development was defined earlier in this chapter as changes in socio-economic structure, which affect the improvement of the quality of life at certain level of locality. This definition implies that the scale of socio-economic transformation is limited basically by the elements of future and nature and further by political consensus as shown in the "sustainable hut".

There has been extensive debate, throughout a variety of disciplines, on the concept of sustainable development. It is the time to move from this seemingly inconclusive debate to practical realisation of those principles. As Palmer (1992) points out, there are no existing models to consider and at best one can only suggest a vision of what a sustainable society would look like; there is even less consideration of the concept at the local level. Therefore this thesis suggests a model at the local level assuming that city farming on vacant land in Seoul is an appropriate case. Although city farming in Seoul is not an intentional consequence of organised management, this thesis suggests that city farming on vacant land in Seoul is worthy of being considered from the viewpoint of sustainable urban development.<sup>18</sup>

### 3.6 CONCLUSION

Sustainable urban development was defined as "an ideology which is based on the proposition that, in the urban domain, environment and development are mutually dependent and the reciprocal relationship ought to be maintained for the benefit of the present and future generations". However, because the concept of sustainable urban development is a vague term such as freedom or justice, one of the most important things is to find out the conditions or principles rather than the definition of the concept.

Before discussing the conditions of sustainable urban development, this chapter examined the history, the dimensions and the criticisms of the concept. The root of the concept can be found in the Western environmentalism and the concept was developed by the initiative of the UN for a developmental strategy for the Third World. It, therefore, has a strong global perspective. However, recently the concept has become a useful conceptual framework for sound urban

development of the developed as well as the developing countries. Meanwhile, a number of criticisms of this concept help rather than hinder the elaboration of the concept. But there is still much room to debate over this concept.

Finally, this chapter identified five basic elements of sustainable urban development and discussed the criteria of each element. Using the analogy of the "sustainable hut", this chapter showed the significant difference of this concept from other types of development strategies. The model showed how each element stood as an integral part of the concept of sustainable urban development. This chapter also emphasised that all the elements including the criteria of each element were all interrelated. From this point of view, the concept of sustainable development is not so contradictory as Redclift (1987) suggests, but rather systematic and convincing.

The next chapter deals with the socio-economic context of the study area and describes other background conditions essential for the research before examining what city farming in Seoul is in Chapter 5.

## Notes

- 1 For this failure, three alternative indicators have been developed: the Human Development Index (HDI) devised by the UNEP, the Index of Sustainable Economic Welfare (ISEW) developed by Herman Daly and John Cobb, and per capita grain consumption particularly for low-income countries. The first is composed of three indicators: longevity in terms of life expectancy, knowledge in terms of literacy and mean years of schooling, and command over resources by using per capita GDP after adjusting it for purchasing power. Daly-Cobb Index is more comprehensive including several environmental factors like depletion of nonrenewable resources, loss of farmland from soil erosion. For details, see Brown et al. (1992 pp121-30).
- 2 More than 20 additional definitions for sustainable development can be found in the annex of the book "Blueprint for a Green Economy". See Pearce et al. (1989).
- 3 There have been a wide range of books and articles around this concept from the early 1980s to as recently as 1993. With different contexts and perspectives, there are also various similar concepts which all share the same meaning: for example, including the previous concept of ecodevelopment (Riddell 1981), from the original concept of sustainable development (IUCN/UNEP/WWF 1980; Redclift 1987; World Commission on Environment and Development 1987; Stokke 1991; Holmberg ed. 1992; Carley and Christie 1992), sustainable environmental management (Turner ed. 1988; 1993), green economy (Pearce et al. 1989; Pearce ed. 1991; Jacobs 1991), sustaining earth (Angell et al. 1990), planning for sustainable development (TCPA 1990), planning for a sustainable environment (Blowers ed. 1993), politics of sustainable Third World urban development (Aina 1990), green development (Adams 1990), ecology of sustainable development (Rees 1990), sustainable society (Dobson 1990), sustainability planning (Jacobs 1991), sustainable future (Holliday 1991), sustainable living (IUCN/ UNEP/ WWF 1991; Girardet 1992; Watkins 1993), environmental and economic sustainability (Barrett and Browne 1991), politics of sustainability (Goodman and Redclift 1991), sustainable people (Doob 1991), sustainable urban development (Elkin et al. 1991), sustainable world (Harrison 1992), to the recent debate on sustainable development framed in the Earth Summit at Rio (Lovejoy 1992; Hams 1992; Anderson 1992).
- 4 But it must be noted here that the UN initiative has done both good and harm to the development of environmentalism in general. On the one hand, it has continuously provided the scientific results of research into fauna and flora all over the world while integrating each nation's effort for the rational management of the earth. On the other hand, too focused on the global matters, it has distributed a misleading alarm to the local people that all environmental problems are global so that they have nothing to do with it, distancing themselves from participating in the solution of the problems. In some other cases such as the World Bank, it has often been criticised for aiding the environmentally threatening big project of Third World countries, such as highway construction across the Amazon and a huge dam building in India, for example.
- 5 Dr. Gro Harlem Brundtland, then leader of the Norwegian Labour Party, was selected as chairperson and Dr. Mansour Khalid, former minister of foreign affairs for Sudan, as vice chairperson; the two then appointed the other members of the commission-a majority from the Third World.

Their final report, titled *Our Common Future*, was released in April 1987 and soon became known popularly as the Brundtland Commission Report. They provided considerable evidence that our global commons is in crisis. (Milbrath 1989). In the autumn of 1987 the Brundtland Commission presented its report to the 42nd session of the General Assembly of the United Nations (La Court 1990).

- 6 Here conservationism is represented by National Trust while environmentalism being typified by both Greenpeace by its direct action and Friends of Earth through its patient and expert lobbying. See Dobson (1990).
- 7 MacNeill (1990) suggests that global warming may be a form of feedback from the Earth's ecological system to the world's economic system; so is the ozone hole or acid rain.
- 8 But it must have a new form of growth: it requires a change in the contents of growth making it less material- and energy-intensive and more equitable in its impact (WCED 1987 p52).
- 9 It means that development must allow for mistakes without endangering the integrity of the immediate ecosystem and resource base. This is fairly unknown principle. Ernst and Christine von Weizsacker of the Institute for European Environmental Policy introduced the term. As they explain, a society should allow for mistakes as long as they teach you something: for example, when children learn to walk and to climb, you let them climb on the sofa or on a chair. But not on the window sill of the third floor; likewise, one can also see the scale of development in this light, where the smaller the scale, the higher the error friendliness. See La Court (1992 pp136-9).
- 10 Because the dividing line between planning and sustainable development is in the "long-term" time scale, argues Elkin et al. (1991 p3), the short-term planning that characterises modern development and the modern city must be rejected. But the author disagrees with that charge. The idea of short-term planning should be incorporated into the longer-term perspective of sustainable development because without a firm basis rooted in the short-term security, the longer-term views are likely to be utopian or an ideal dream because humans simply do not know what will happen in the future. For further explanation of the poverty of historicism, see Popper (1961).
- 11 The Earth's life-support systems are still little understood. Surface temperature have remained suitable for life controlled by the feed- back of the levels of carbon dioxide and water vapour in the air, both affected by plant cover. Even vegetation can influence the albedo value, the earth's shininess through affecting the level of cloud cover. See Myers (1985).
- 12 In 1990 when a hundreds-year-old tree in Seoul collapsed, this event attracted media attention. As the President of South Korea had interest in making alive the tree, many ordinary people came forward to help revive the tree. Meanwhile, there was a project to build a bridge over the road in the Mount Namsan for the wild animals to move along (Choseon-Ilbo newspaper 26.5. 1992). When crawfishes were found in the streams of the Bukhan Mount in Seoul, which were believed to be disappeared since the 1970s, it was a big news for Seoulites (see Jungang-Ilbo newspaper 23.6.1992).
- 13 It should be remembered that participation is not always good and working. Sometimes participation can delay executive actions, annoy the legitimate elites, exacerbate social divisions, and result in counter-

- productive and repressive social legislation. See O'Riordan (1981 pp258-63).
- 14 There is a slightly different nuance between equality and equity. While equality is a main issue for sociologists as a matter of right and responsibility, equity is one for lawyers as a matter of justice. The thesis prefer equity to equality for the former without its legal tint embraces both the meaning of equality and equity; that is, equal opportunity and just distribution. For details, see Rawls (1971), Harvey (1973) and Turner (1986).
  - 15 To engage in violent acts likely to injure and to hurt is incompatible with civil disobedience as a mode of address. Yet civil disobedience is giving voice to conscientious and deeply held convictions; while it may warn and admonish, it is not itself a threat. Civil disobedience is nonviolent for another reason: the law is broken, but fidelity to law is expressed by the public and nonviolent nature of the act, by the willingness to accept the legal consequences of one's conduct. This fidelity to law helps to establish to the majority that the act is indeed politically conscientious and sincere, and that it is intended to address the public's sense of justice (Rawls 1971 pp366-7).
  - 16 Goldsmith coined this word putting the Greek *homo* (same) and *telos* (goal) together. Homeotely means that natural systems share the common goal of maintaining its critical order or stability for only in this way can they maintain their own critical order and stability. See Goldsmith (1992 p277).
  - 17 In the study of the Sukuta Women's Co-operative Project in Gambia, Barrett and Browne analyse the aspect of economic sustainability of the project. With large members of 448, the scheme was evaluated not to be economically sustainable so that a decision was made by the woman president of the cooperative to reduce the number of participants by half to achieve a ratio of approximately 20 women per hectare. The ratio has been demonstrated to be economically viable by the sponsors of other horticultural schemes. See Barrett and Browne (1991).
  - 18 La Court (1990) suggests urban vegetable growing as an example in which his six principles of sustainable development play a role.

## Chapter 4

### *Description of The Study Area*

#### 4.1 INTRODUCTION

Meaning is "context-dependent", that is, making sense of events requires contextualisation of them (Sayer 1992). In practical research, context is important too. The city farming as a form of the allotment in the UK is different from that of South Korea as a form of squatting not only because the former is well organised while the latter is not, but also because socio-economic, environmental and other conditions are different from each other. Therefore to explain a social phenomenon like city farming, it is necessary to know the socio-economic and environmental conditions of the study area, and other basic information such as the administration and planning systems.

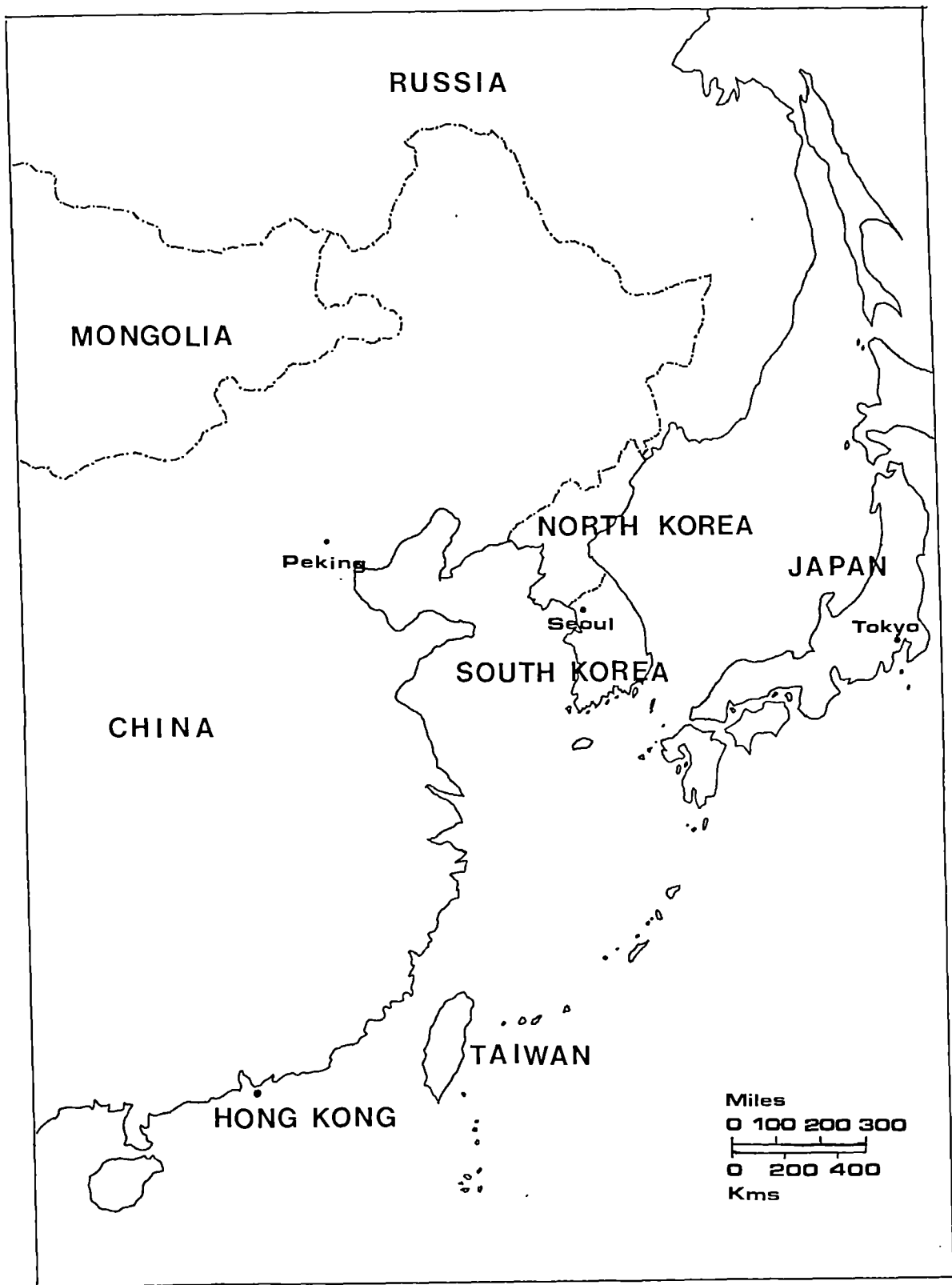
The second half of this century has witnessed an unprecedented transformation of the socio-economic structure and political ideology in Korean history. Seoul has been at the hub of the rapid economic growth of South Korea. However, in pursuit of economic growth and ignoring the importance of environmental quality, Koreans have seriously impaired their natural environment. Therefore without knowing about the change of the socio-economic structure and recognising the deepening environmental concerns, it would be impossible to fully understand the nature of this research topic. This chapter looks at the socio-economic conditions, administrative and planning systems, land policies and environmental problems of Seoul. Before discussing these aspects, this chapter briefly reviews the natural surroundings and history of Seoul.

## 4.2 NATURAL SURROUNDINGS AND BRIEF HISTORY OF SEOUL

Seoul is situated on latitude 37.34 degrees north and longitude 124.59 degrees east to the west in the central region of the Korean Peninsula which is surrounded by China, Russia and Japan (see Map 4.1). Mt. Kwanak in the southernmost part of Seoul stands opposite Mt. Pukhan with Mt. Namsan in between. The Han River flows across the central part of Seoul to the Yellow Sea. Seoul has four distinct seasons enabling a variety of trees and plants to grow. The average temperature in July, the warmest season in Seoul, is 24 degrees C, while in January, the coldest season, it drops to -4 degrees C. The average temperature for the whole year is 12 degrees C. Seoul sits in a basin surrounded by mountains. Winds come from the west from March to June, whereas the northeast wind prevails from July to November. In the winter the normal direction of wind is from the northwest. Seoul has high rainfall with an average annual precipitation of 1,300 mm. More than 70% of the annual rainfall takes place during the summer season from June to September. Snow falls between December and February.

Archaeological studies and excavations show that human settlements in and around Seoul probably began to develop as long ago as 1000 BC. However, a city scale settlement took shape only when the Baekjae kingdom (18BC-660AD), one of the then three kingdoms, chose a part of present-day Seoul as its capital city called Uiryeseong. In 668 AD, the Shilla kingdom, which unified the then three kingdoms, changed the name of the city to Hanyang relegating it to a small provincial town. In the Koryo dynasty (918-1392AD), which was established following the demise of the Silla dynasty, the area of Seoul still remained a local town until 1067 when it was designated as one of the three so-called small capital cities. In 1392, Seoul, then called Hanyang, was selected to





Map 4.1 SEOUL AND SOUTH KOREA

be a new capital city of the Choseon dynasty (1392-1910). King Taejo moved to the new capital changing its name to Hanseong in 1394, building palaces, shrines and other public facilities according to geomantic principles. The urban form of Seoul city centre established at the time has not changed much since then.

The area of the city of Seoul, which was contained by a 17 km long wall, remained 16.5 km<sup>2</sup> for the 500 years of the Choseon dynasty. However, the surrounding area of 245 km<sup>2</sup> outside the wall was usually included as being part of Seoul. Following the occupation of Korea by Japan in 1910, Seoul was renamed Kyongseong. In 1945 when Korea was liberated from the Japanese rule, the city was given its present name Seoul, whose meaning in Korean is "capital".

In 1946, Seoul became a special city under the direct control of central government. After the three year long Korean War (1950-1953), Seoul began to develop as a modern city although Korea was divided into two countries. Under the Special Act relating to the Administration of Seoul Special City (1962) after the May Revolution in 1961, Seoul became subject to the direct control of the Secretary of State. Since the early 1960s, the rapid and continuous physical and economic growth of Seoul has become the symbol of Korean economic growth as a whole.

### 4.3 SOCIO-ECONOMIC CONDITIONS

South Korea, previously a stable agricultural society, began to modernise with the influx of Western thought and the institution of modern mass education after World War II. The modernisation has been accelerated by rapid industrialisation since 1962 when the first Five Year Economic Development

Plan was initiated. Agricultural employment was 69% of the total employment in 1965, which declined to 19.5% in 1989. Per capita GNP increased from 87\$ in 1960 to 6,265\$ in 1991. The development of health care and the increase of life expectancy have contributed to the increasing number of elderly people who have become of growing concern to modern South Korea. In addition to the economic and population changes, with increased wealth and spare time, people want more recreation and leisure. Furthermore, other factors such as flexible working hours, high-tech communications, and an increased number of women in the workforce, have all contributed to the rapid social transformation of South Korea. Although such changes do not represent the whole story of the changing society of South Korea, they do clearly reflect the socio-economic transformation of South Korea. This section reviews the rapid urbanisation, the problem of ageing society, the rapid change of economic structure and farming as a leisure activity respectively both at the national level and in Seoul.

#### **4.3.1 Rapid Urbanisation**

In 1990, the population of South Korea was 43.52 million. In terms of population density, South Korea is the third most densely populated country in the world following Bangladesh and Taiwan. The urbanisation rate of South Korea rose from 18.4% in 1950 to 74.4% in 1990. In 1990, the population of Seoul reached 10,627,790 to be the tenth biggest city in the world.

The population of Seoul was 103,328 in 1428 (Kim 1984). With the urbanised area of the city being only 16.5 km<sup>2</sup> at the time, the population density was considerably high. The population remained stable until 1910 at around 200,000. Since then, the population of Seoul had steadily increased until 1950 when the Korean War broke out. Soon after the war, population growth gained momentum to be 1.57 million in 1955, 3.47 million in 1965, 4.89 million in 1975,

and 9.64 million in 1985. As recently as 1990, the population of Seoul reached 10,627,790. This means that 24.4% of the national population of 43.5 million people live in Seoul which occupies only 0.61% of the national territory of 99,000 km<sup>2</sup>. The rapid increase of population in Seoul until now is largely due to in-migration rather than natural growth. Table 4.1 shows the rapid urbanisation of South Korea and the increasing concentration rate of Seoul. The concentration rates of various social indicators such as hospitals and universities in Seoul are as conspicuous as that of population (see Table 4.2). But Table 4.2 shows the decreasing rate of concentration for the last 20 years while the absolute numbers increase.

#### 4.3.2 Ageing Society

Large numbers of old people are of great concern to the developed world because a smaller working population may not sustain growing demands on the health and welfare by the old. For example, in Switzerland where 15.3% of population was over 65 in 1990, 20% of population is expected to be over 65 by 2010 (Smith-Morris ed. 1990). Other European countries show similar figures. The picture is quite different in such regions as Africa and Asia, where about 3-4% of population is expected to be over 65 by 2010 (ibid.). Although the current rate of 4.7% does not place South Korea in one of the ageing societies compared with the developed countries, there is an obvious trend towards an ageing society (see Table 4.3). In the period 1905-1910, life expectancy for male Koreans was 22.6 years and for females 24.4 years. After 40 years (1945-50), it had doubled to 45.6 years for males and 50.7 years for females. As recently as the period 1980-1985, another 40 years later, it had tripled to 64.9 years for males and 71.3 years for females (Choi 1992).

## Description of the Study Area

**Table 4.1 Urbanisation Rate of South Korea and Population Concentration in Seoul: 1950-1990 (000s)**

	1950	1960	1970	1980	1990
National Population (A)	20,167	24,989	30,852	37,407	43,520
Urban (B)	3,711	6,997	12,685	21,410	34,622
Rural	16,456	17,992	18,167	15,997	8,897
Urbanisation Rate (B/A)	18.4	28.0	41.1	57.2	74.4
-----					
Seoul's Population (C)	1,693	2,445	5,536	8,364	10,628
Concentration Rate (C/A)	8.4	9.8	17.9	22.4	24.4

Source: Economic Planning Board, Census of Population and Housing, Corresponding years between 1950 and 1985; Ministry of Home Affairs, Korea Urban Yearbook 1991 for 1990 data.

**Table 4.2 Concentration Indicators in Seoul**

	1970	1980	1989
Manufacturing Employee (1000)	292 (33.9)	445 (22.1)	553 (17.2)
University Student (1000)	98 (67.1)	211 (39.4)	288 (28.2)
Hospital	4,201 (40.0)	4,785 (35.9)	7,319 (36.5)
Deposited Money (bil. Won)	500 (63.3)	8,068 (64.9)	37,236 (55.6)
Loaned Money (bil. Won)	463 (64.1)	7,864 (64.4)	35,118 (56.1)
Inland Revenue (bil. Won)	138 (48.6)	1,157 (31.5)	4,791 (38.2)

Note: ( ) denotes the percentage of national total.

Source: Park, Sang-Woo. 1992. "The changing direction of the Seoul Metropolitan policy," National Land Information. April 1992. p7.

**Table 4.3 The Population by Age Groups in South Korea (000s; percentages in brackets)**

Year	Total	0-14 Years	15-64 Years	65+ Years
1960	24,989	10,731 (42.9)	13,435 (53.8)	823 (3.3)
1970	31,435	13,242 (42.1)	17,154 (54.6)	1,039 (3.3)
1980	37,407	12,656 (33.8)	23,305 (62.3)	1,446 (3.9)
1990	43,601	11,868 (27.2)	29,709 (68.1)	2,025 (4.7)
2000	48,017	11,078 (23.1)	33,969 (70.7)	2,972 (6.2)
2020	52,473	9,258 (17.6)	37,445 (71.4)	5,772 (11.0)

Source: Economic Planning Board (1986; 1987; 1989) and Choi (1992)

The problems almost all Korean old people face are economic dependence, role loss, lack of leisure activities, and loneliness (Kim, Sung-Soon 1990; Choi 1992). Some of the ways to cope with the problems are to meet friends in public parks and to go to the halls for the aged while a very small proportion of the elderly joins the so-called colleges for the aged. In 1991, the halls for the aged all over the country numbered 18,809 where a million members, a third of the population over 60s, got together to enjoy chatting, playing Go and Korean chess and so on. On the other hand, the number of the halls for the aged in Seoul in 1990 was 1424, which was much more than Rome's 40 places, and Tokyo's 20 places (Seoul City Government 1991; Monthly Glorious Sunset April 1992 pp48-53).

The elderly are actually a hidden resource. There are many ways of mobilising the elderly as useful resources: the elderly in a community can be voluntary traffic wardens (Jungang-Ilbo newspaper 7.7.1992); the reemployment of retired

public officers in Ku Offices of Seoul is well publicised (Donga-Ilbo newspaper 29.6.1992); the number of private companies and hotels, for instance, to employ old people is growing (Jungang-Ilbo newspaper 7.7.1992). To facilitate the trend, the Elderly Employment Promotion Act was enacted in 1992. This act imposes on companies with over 300 employees an obligation to employ the elderly of 55 years old and over who should be at least 4% of the total number of employees of each company. The act also stipulates the extension of the retirement age from 55 to 60.

#### **4.3.3 Rapid Change of Economic Structure**

As the economic policy changes from import substitution to export-led growth, the Korean economy has experienced an unprecedented rapid industrialisation since the early 1960s. Under these circumstances, rural to urban migration was a vivid social phenomenon of that period. The ratio among the 1st, 2nd, and 3rd industries in terms of GNP was 33.4: 21.7: 50.0 in 1962 when the first Five Year Economic Development Plan was established. It changed to 27.7: 22.3: 49.9 in 1972 and to 14.5: 32.2: 53.3 in 1985. Table 4.4 shows how the industrial structure has changed for the last 20 years in terms of employment. It demonstrates that the ratio of the 1st industry has quickly decreased while that of the 2nd has steadily increased and the 3rd has increased at the national level but gradually decreased in Seoul. As Table 4.4 shows, agricultural industries in Seoul have shrunk while service industries have continuously been dominant in the local economy.

Heavy industries such as steel, machinery, ship-building, petrochemistry, and car manufacturing have led the growth of the 2nd industry of South Korea by virtue of positive government intervention. The so-called "Export First" economic policy has been continued since the early 1960s in South Korea where

natural resources are poor and domestic market is small. The government has rapidly promoted labour intensive and environment-multiuse industries such as fabric, leather, rubber, and ceramic industries recognising their comparative advantages. South Korea's rapid industrialisation from the late 1960s through the 1970s was accompanied by an average annual GNP growth rate of 10 percent, one of the world's highest.

**Table 4.4 Transformation of Industrial Structure in Terms of Employment (percentage of total)**

		Agriculture	Manufacturing	Service
South Korea	1965	58.6	10.4	31.0
	1970	50.4	14.4	35.2
	1975	45.8	19.2	35.0
	1980	34.0	22.5	43.5
	1985	24.9	24.5	50.6
Seoul	1965	3.4	18.4	78.2
	1970	2.1	23.0	74.9
	1975	1.3	25.4	73.3
	1980	0.9	30.1	69.0
	1985	0.9	28.7	70.4

Source: Economic Planning Board. Annual Report on the Economically Active Population Survey. Corresponding Years.  
Seoul City Government, Seoul Statistical Yearbook. Corresponding Years.

As a result of this economic growth and the increased disposable income, Korean people, particularly Seoulites, are enjoying a modern life style. According to the Social Welfare Indicators for Seoul (Seoul City Government 1990a), 96% of households in Seoul have a colour television set. Other relevant statistics are: a telephone for 95.8%, a refrigerator for 96.8%, a washing machine for 80.5% and a car for 27.5%. Electronic machines such as VCRs (41%) and personal computers (10.2%) have now found their way into many homes.



#### **4.3.4 Farming as a Leisure Activity**

With reduced working hours and increased disposable incomes, Seoulites are now seeking more leisure pursuits. Quite a lot of citizens want to spend their weekends in suburban rural areas to escape the polluted city. So there is a growing popularity for the so-called tourist farms (Farm Business Management 2.1992). The aim of tourist farms can be seen from two points of view: rural and urban aspects. From the rural point of view, the aim is related to an income increase project as a new kind of rural service industry and the promotion of regional development; from the urban point of view, it accommodates the increased leisure demands in rural areas to provide a sound leisure space for citizens and to promote a friendly relationship between city and countryside. In short, it is a commercialisation of the rural environment.

Together with the popularity of tourist farms, there is a growing interest in "weekend farmhouses" or "garden houses" particularly by Seoulites (Choseon-Ilbo newspaper 16.7.1990). Weekend farmhouses are purchased by citizens who wish to enjoy their weekends at the farmhouses with their families, while garden houses are permanent homes for the elderly or white collar professionals who want to escape urban life.

### **4.4 THE ADMINISTRATIVE SYSTEM**

#### **4.4.1 Central Government**

The three powers of administration, legislation, and judiciary are clearly separated in South Korea. The President of South Korea is the head of administration and has supreme power in both home and foreign affairs. The President is elected by direct election and the term of office is 5 years. Under the

President and the Secretary of State, there are dozens of ministries. For example, urban and regional development, and environmental conservation policies are closely related to such ministries as the Ministry of Home Affairs, the Economic Planning Board, the Ministry of Construction, and the Ministry of the Environment.

The Ministry of Home Affairs controls the local administration system playing a major role in the appointment of mayors and heads of Kuns at present. The Ministry of Construction is responsible for national land development planning and urban planning. The Ministry of the Environment is in charge of the prevention of pollution and the establishment of environmental standards.

#### **4.4.2 Local Government**

Following the Constitution promulgated in 1948, the Temporary Act of Local Government (1948) prescribed the succession of former local authority areas and the status of heads of Eups (town) and Myons (township) (see Figure 4.1). Although the Local Government Act was enacted in 1949, local elections did not take place due to a series of domestic unrest at the time and the outbreak of the Korean War in 1950. In 1952, local councils were finally set up through local elections, which can be said the beginning of a democratic local autonomy system of South Korea. This Act had been in force for 9 years until 1961 when the 16th of May Revolution terminated the local autonomy system and reformed the central and local government system. The major reforms were the abolition of Eup and Myon local authorities and the establishment of Kun (county) local authorities, the dissolution of local councils, and the appointment of heads of local authorities.

The South Korean local government system consists of a two-tier local autonomous system and a three-tier administrative structure. Primary local autonomous bodies include 67 cities, 137 Kuns (counties) and Kus (urban districts), and secondary autonomous bodies consist of 1 special city (Seoul), 5 direct jurisdiction cities and 9 provinces (see Figure 4.1). Dongs, Eups and Myons have no autonomous status, which means these are just supplementary administrative bodies. South Korean local authorities, reinstated in 1991, adopt a mayor-council system, in which mayors of Seoul and direct control cities and governors of provinces are still appointed by the President at the request of the Secretary of State while the members of local councils are elected by the constituents.

#### **4.4.3 The Administrative System of Seoul**

Seoul has a two-tier local autonomous system with a three-tier administrative structure. 22 Ku (urban district) Offices under the direct jurisdiction of the city are each headed by an administrator appointed by the mayor of Seoul. Each Ku is further divided into Dongs which are supplementary administrative offices. There are two types of Dongs: an administrative Dong and a legal Dong; the former is for the efficient management of central and local government administration and the latter for official uses such as survey and land registration. For example, the Banpo Dong case site, one of the three case study sites, is under the control of Banpo 3 Dong Office while the lot numbers of the site are 66-2 and 66-14 Zamwon Dong. However, the administrative Dong is in charge of every community level administration. In 1992, there were 516 administrative Dongs in Seoul with the average number of residents for each Dong being about 20,000. In accordance with an amendment to the Local Government Act which came into force on April 4, 1988, the autonomy of Ku level administration was legally approved.

New ordinances and regulations to meet the specific needs of each Ku local authority have been instituted. Four previously municipal taxes including property tax have been converted to Ku taxes. Ku Offices also deal with permits and licenses which were previously municipal functions. A new local autonomy system was fully established in 1991 when the city council and Ku councils were formed. But the schedules for the elections of heads of local authorities are still being negotiated in the National Assembly.

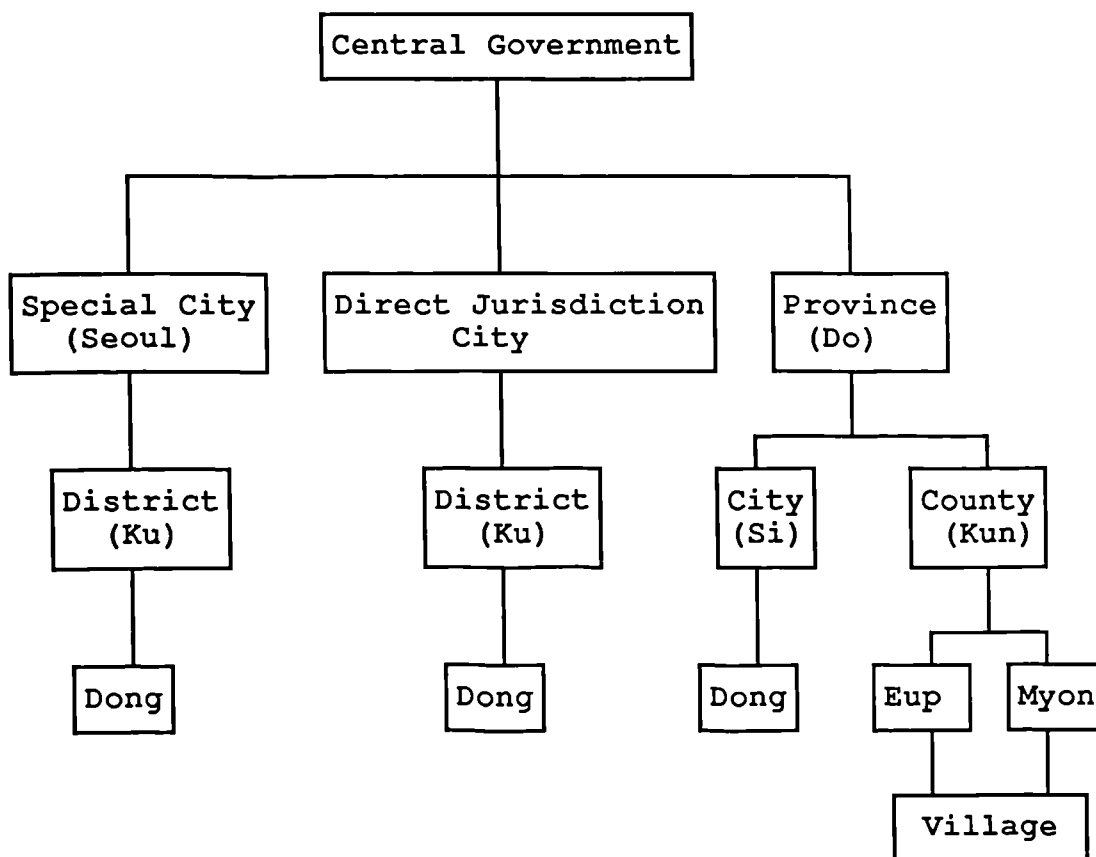


Figure 4.1 The Structure of Local Government in South Korea

## 4.5 THE PLANNING SYSTEM

### 4.5.1 The Korean Planning System

The Korean planning system can be categorised basically into three: national land planning, urban planning and individual construction planning. National land planning is composed of four levels of plans: a national land plan, specific region plans, province plans and Kun plans. Urban planning consists of three levels of plans: an urban master plan, an urban readjustment plan and an execution plan. This section mainly deals with the urban planning system in South Korea in general and in Seoul in particular.

Urban planning in South Korea as defined in the 1991 Urban Planning Act is that "planning concerning land use, transport, health, environment, industry, security, defence, welfare, and culture for the purpose of achieving public order, welfare improvement and sound development of the cities in Urban Planning Areas". The Urban Planning Areas have a special meaning in the planning system of South Korea because city plans can be prepared only in the Urban Planning Areas except for a case approved by the Minister of Construction who recognises a need to draw up a city plan outside the Urban Planning Areas. Since the passing of the National Land Use and Management Act in 1972, it has been a prerequisite to be designated as an urban area before an area is decided as an Urban Planning Area.

There are a number of zoning systems in South Korea. According to the 1982 National Land Use and Management Act, there are ten areas for different uses: city, community, cultivation, forest conservation, industry, natural environment conservation, tourist and resort, water resource conservation, development promotion, and reserve areas. After the designation of such areas, it is obligatory for central and local government to manage and control them

according to the purposes of the designation. On the other hand, there are four basic zones such as residential, commercial, industrial and green zones which are classified according to the definitions in the 1991 Urban Planning Act .

#### **4.5.2 Hierarchy of The Planning System**

South Korea has a very strict land use control system. There are two types of land use regulations: zoning under the Urban Planning Act controls the land use in urban areas; the regulations under the National Land Use and Management Act control the land use in non-urban areas. Figure 4.2 below shows the hierarchical system of the acts related to the control of land use and development in South Korea. This hierarchical system basically follows the three levels of planning as mentioned at the start of this section. The following section mainly discusses a national land plan, province plans and urban plans, and their relationships.

Although South Korea had the Comprehensive National Land Development Planning Act (CNLDPA) in 1963, which became the basis for the systematic nationwide land use planning, there had been no fundamental and comprehensive national land development plan until 1971 except for the first (1962-1966) and second (1967-1971) Five Year Economic Development Plans in which a kind of national land development plan was included as a part of it. The first Comprehensive National Land Development Plan (1972-1981, CNLDP) classified the national land of South Korea into 4 big (based on rivers), 8 medium (based on provinces) and 17 small (big cities and regional centres) spheres for a systematic implementation of the plan. A new act called the National Land Use and Management Act was established in 1972 to ensure the CNLDP to be implemented systematically and efficiently. The main ideas of the plan were in fact introduced from the TVA (Tennessee Valley Authority) project

of the USA in terms of large-scale dam construction, employment creating public works and other economic development projects, for example. But the second CNLDP (1982-1991) adopted quite a different method called "growth pole development". Based on the theory of growth pole, this plan divided national land into three levels of growth poles: metropolises, central cities of provinces, and cities of regional centres. Under heavy criticisms, the plan was at last replaced by a new scheme developed in the second Comprehensive National Land Development Modification Plan in 1986, which grouped national land into several economic and life spheres. As shown in Figure 4.2, the CNLDP drawn up under the CNLDPA is the basis for urban and province plans.

Although there were a number of provisions concerning province plans in the CNLDPA, no single province plan was drawn up until 1981. It seems strange that urban master plans had already been drawn up and were being implemented while province plans, which should have been the basis for the urban master plans, did not exist. In principle, province plans should be prepared by governors and reviewed by province councillors. Therefore the Ministry of Home Affairs (MOHA) has the responsibility for the preparation of province plans. But with the absence of province councillors until the 1991 local elections, MOHA had to act for them. In the meantime, CNLDP, the basis for province plans, is prepared by the Ministry of Construction (MOC). As a result of this, there have been a number of conflicts between the two ministries because MOHA takes precedence over MOC in the hierarchical status of ministries of central government while CNLDP prepared by MOC should be followed by the province plans prepared by the higher ranked MOHA. In addition to this confusion, there is another problem, namely that urban master plans must be finally approved by MOC while province plans, the basis of urban plans, should be officially confirmed by MOHA.

## Description of the Study Area

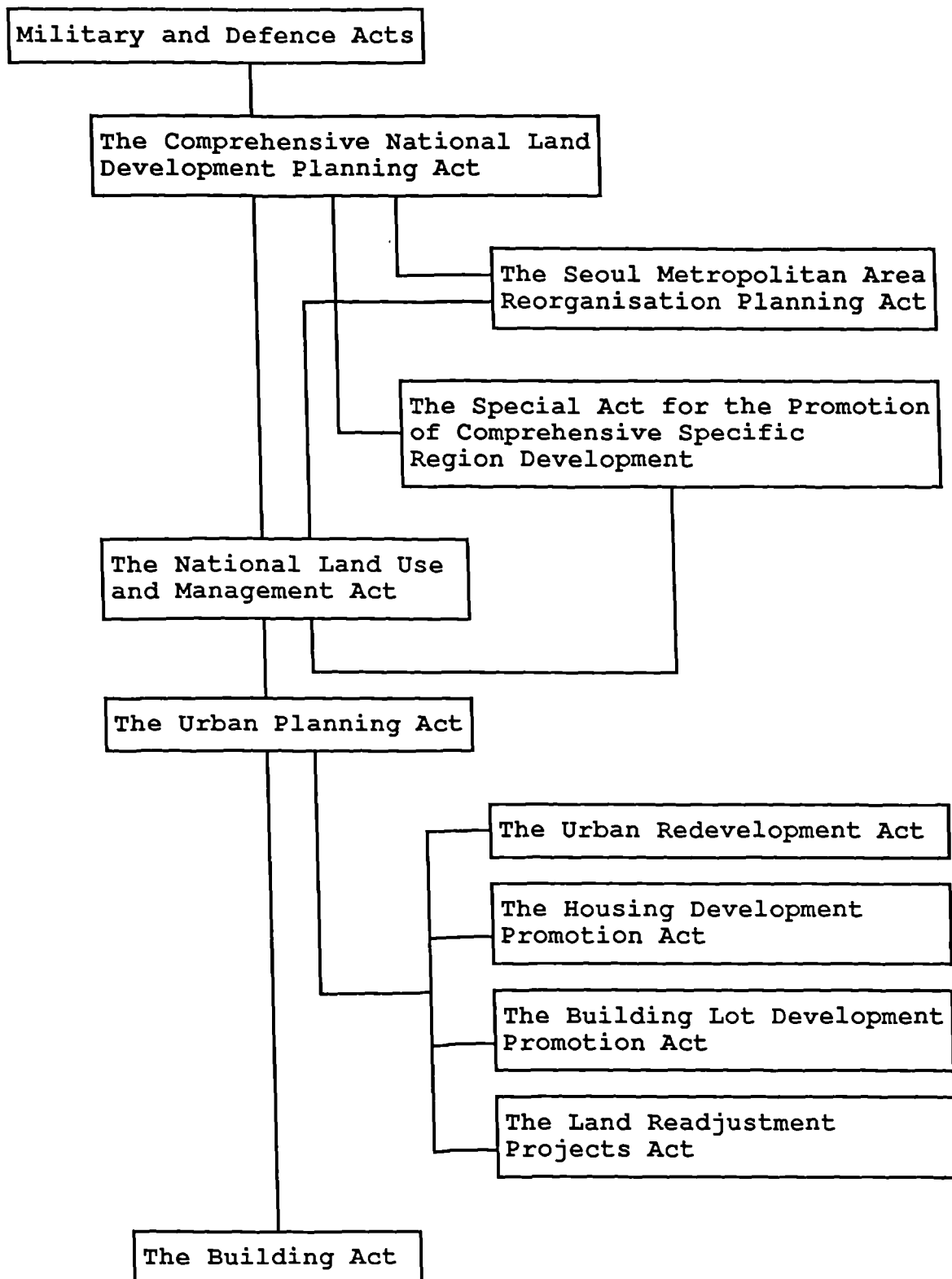


Figure 4.2 The Hierarchy of Land Use Acts in South Korea



The CNLDPA has no provisions for urban plans in its clauses. It can be interpreted like this: an urban plan is a kind of physical plan and a city is included in the territory of a province, so that a province plan automatically becomes the basis for urban plans. The term of an urban master plan is 20 years while that of both a CNLDP and a province plan is 10 years. There are master plans and executive plans in the urban plans, where executive plans are drawn up every 1 year or 2-3 years' interval for longer projects. To fill the gap, 5 or 10 years medium term plans called urban readjustment plans have been introduced. Province plans have no practical power both in their own implementation and in having an effect on urban master plans. In short, even if there is a statutory and hierarchical planning system in South Korea, it is hard to say that it has worked systematically and effectively. But there was a major modification in the Urban Planning Act in 1991. One of the changes was the introduction of regional plans and detail plans. A regional plan is to be prepared in relation to strategic planning which needs to be planned over a wide area: for example, transport services whose plan stretches over more than two Urban Planning Areas are the case. Meanwhile, a detail plan is to be prepared for a block or a redevelopment area with detailed guidelines.

#### **4.5.3 Legislations for Land Use Planning**

It was the early 1960s when most of the basic land laws of South Korea were enacted: these were the Roads Act (1961), the Woods and Forests Act (1961), the Rivers Act (1961), the Compulsory Acquisition Act (1962), the Urban Planning Act (1962), the Building Act (1962), and the Comprehensive National Land Development Planning Act (1963), for example. They were followed in the late 1960s by numerous other acts mainly to provide as many industrial estates as possible: for example, the Specific Multi-purpose Dams Act (1966), the Harbours Act (1967), the Electronic Industry Promotion Act (1969). The early

1970s saw an inundation of land policies through the legislation of such acts as the Woods and Forests Development Act, the Housing Development Promotion Act and the Rural Modernisation Promotion Act.

It was in this period that Green Belts were designated through the amendment of the Urban Planning Act in 1971. The legal foundation of Green Belts, officially called Development Restriction Districts, can be found in the Urban Planning Act and Green Belts have mostly been included in Urban Planning Areas. The purpose of introducing the Green Belt system which was originally developed in the UK was basically different from that of the UK. South Korea used it rather as a means of land speculation control than as preventing urban sprawl. In 1990, the total area of Green Belts in South Korea reached 5,397.1 km<sup>2</sup> (5.5% of the national land) stretching over 28 cities and 36 Kuns. The area of Green Belts in the Seoul Metropolitan Area is 1,438.6 km<sup>2</sup> (12.3% of the SMA).

In the meantime, a good deal of effort has been made to build new towns. New towns such as Banwol, Changwon, Yeocheon, Donghae were built in the 1970s. While these are all industrial new towns, newly built new towns in the late 1980s and early 1990s such as Bundang, Ilsan, Pyoungchon, Sanbon, and Jungdong are all dormitory towns around Seoul. But with its more than 10 million population and with surrounding 13 satellite cities - most of them dormitory towns - already saturated, Seoul seems to be so near to these new towns that, as many worry, the new towns would further exacerbate the concentration of Seoul.

#### **4.5.4 Planning in Seoul**

A national land plan, a specific region plan called the Seoul Metropolitan Area Reorganisation Master Plan (SMARMP) and an urban master plan are the three

basic plans which affect the development of Seoul. However, with the national land plan serving just as a guideline, the most important plans are the urban master plan and SMARMP. Before dealing with this subject, a brief history of urban planning in Seoul is reviewed.

#### **4.5.4.1 Brief History of Planning in Seoul**

Following Moon and Lee (1990), this section briefly reviews the history of urban planning in Seoul focusing largely on the Choseon dynasty (1392-1910) and the Japanese occupation era (1910-1945):

- 1) 1394-1876 (Choseon dynasty): In the period between 1394 and 1415, the basic spatial structure of the city centre of Seoul had been completed. The ideologies for spatial planning at this stage were Confucianism, geomantic principles and the divine rights of king.
- 2) 1876-1919 (from the opening of ports to the early Japanese rule): This stage focused on the construction and management of roads, sewerage and water supply facilities.
- 3) 1920-1933 (the middle of the Japanese occupation): The Kyongseong (the name of Seoul at this time) Urban Planning Research Committee was established in 1921 having a considerable influence on the urban form of Seoul. A city was viewed as an "organism", so urban planning was regarded as "applied biology".
- 4) 1934-1945 (from the Korean City Planning Order to the Liberation): The first Korean City Planning Conference was held in 1936 focusing on the construction of buildings in cities with emphasis placed on the military point of view. Low floor space ratios, wide streets, no cul de sacs, big roundabouts with fountains containing water, and the consideration of air defence were the top priorities in urban planning.

But modern urban planning only started in 1962 when the Urban Planning Act and the Building Act were established. In other words, although there had been some kinds of urban planning in Seoul, this was remote from the modern concept of urban planning. Urban planning before 1962 was detached from the social life of citizens, and people did not care who planned what. Modern urban planning in Seoul since then can be described as an interacting process of two seemingly conflicting propositions: to develop Seoul and at the same time to disperse the population of Seoul.

#### **4.5.4.2 Development Planning**

Modern Seoul is, in a sense, an unplanned city. Except for the city centre, most of the development occurred either through boundary annexation or through development in bits and pieces. The hard evidence is that there was no legally approved master plan for Seoul until May 1990. Of course, there was a comprehensive urban plan (1972-1981) but with no legal basis. In addition to this, there was the so-called life-sphere plan for each Ku of Seoul before the reinstatement of Ku level local autonomy system. Now Ku level urban master plans are being prepared in relation to the newly established urban master plan. However, in the absence of a master plan, other ad hoc developments, for example, underground development and the 1988 summer Olympic preparations, have instead led the urban development of Seoul.

In the meantime, to establish an implementation plan for the master plan and to readjust the present urban plan, an urban readjustment plan was introduced. The area which is affected by this plan is the Seoul Urban Planning Area. The basic elements in the urban readjustment plan in Seoul are to follow the directions in the master plan and to restructure Seoul into a multi-nuclei city. The objectives of the urban readjustment plan include a balanced development between Kus, and a rationalisation of the problematic urban plan in terms of the

mismatch between functions and planning implementation, and citizen complaints towards the present urban plan.

#### **4.5.4.3 Population Dispersal Planning**

One of the continuing major issues in South Korean planning is the control of concentration in the Seoul Metropolitan Area (SMA). In 1990, 42.7% of Korean people lived in the SMA which consisted of 11.7% of national land. A lot of policies have been prepared to solve this problem since 1960s (see Appendix D). However, on the contrary, various investments have been continuously concentrated into the SMA. Identifying universities, factories and offices, for example, as the main population inducing facilities, the Korean government enacted the Seoul Metropolitan Area Reorganisation Planning Act in 1982 in order to disperse these facilities and to implement other measures. The objectives were to achieve an ordered reorganisation and a balanced development of the SMA through the proper redistribution of population and industries.

The framework of this policy is to divide the SMA into 5 areas and try to redistribute the population inducing facilities according to the Seoul Metropolitan Area Reorganisation Master Plan and its Enforcement Ordinance. However, all those efforts seem to have failed to stop the growth of Seoul simply because of the discrepancies within government policies themselves. Since Seoul is the power house of Korean economic growth, the success of the dispersal policies should have led to a delayed growth of Korean economy. That was a dilemma, and the government chose a way for the rapid national development instead of the interregional balanced development.

But the efforts to disperse the population of Seoul are continuing. One of the recent efforts is the relocation of government offices. A number of key central government offices have already been relocated to the second government

office complex in the new town of Kwachon, a satellite city of Seoul. 11 more government offices will move to the third government office complex in Daejeon which is in the middle of South Korea.

## **4.6 LAND POLICIES**

Of the national land of South Korea, 22.6% is agricultural land and 66.2% is mountain. The space left for roads, housing, schools, factories is just about 4% of the national land. Building lots consist of only 1.8% of the national land, which means each person can have about 46 m<sup>2</sup> of their own land. However, the problem is not the scale of national land, but its unequal distribution.

### **4.6.1 Land Problems in General**

First of all, South Korea has a rural land problem. With the increasing demands of industrial land, construction of dams and roads, and urban sprawl and consequent housing developments, the area of farmland has steadily been reduced. Between 1978 and 1988, 840 km<sup>2</sup> of agricultural land had disappeared (Korea Development Problem Research Institute, 1989). Due to the decreasing rural population and increasing agricultural labour costs, the amount of vacant agricultural land is increasing year by year.

There are three major land problems in South Korea: imbalance of landownership, high land prices, and land speculation. 28.1% of households in Seoul have their own land and 50.6% of them own their own houses (Public Concept of Land Committee 1989). As shown in Table 4.5, the upper 5% of landowners occupy 65.2% of private land in South Korea while the same percentage of group possess 57.7% of private land in Seoul. In other words, 1.4% of households in Seoul have 58% of private land of Seoul.

**Table 4.5 Land Ownership Rate for Private Land (%)**

Landowner	National Land	Land in Seoul
upper 5%	65.2	57.7
upper 10%	76.9	65.9
upper 25%	90.8	77.8

**Note:** Total private land is 73,139 km<sup>2</sup> (73.7% of national land) .

**Source:** Public Concept of Land Committee. 1989. Report.

In 1988, 23.9% of South Korean people moved their houses while 33.2% of Seoul residents moved their houses (Donga-Ilbo newspaper 15.6.1989). The reasons can be found not only in the low home ownership rate (50.6%), but also in the soaring rent forcing many people to move to a cheaper house every year. Meanwhile, the total land price of Seoul which has 0.6% of the national land, amounts to 32.3% of the national land price (here the price of national land is estimated in its market value). Furthermore, the Seoul Metropolitan Area accounting for 11.7% of South Korean territory is worthy of 47.2% of the total national land price. This means that land prices in South Korea are not just high but also highly differentiated by regions. In addition to this, there is an obvious price disparity between zones. For example, land prices in commercial zones in Seoul are on average about 6000£ per pyong (3.3m<sup>2</sup>). Table 4.6 shows land price increases in South Korea in comparison with other indicators.

**Table 4.6 Land Price Increases in Comparison with Other Indicators from 1975 to 1988 in Korea.**

	75 (A)	80	83	85	88 (B)	B/A
Land Price	100	328.1	440.5	533.5	836.8	8.4
Housing Price	100	355.3	328.7	397.0	466.9	4.7
GNP	100	174.4	174.2	210.8	309.0	3.1
Wholesale Price	100	224.3	276.2	289.0	373.7	3.7

**Source:** Kim, Hong-Dae. 1990. Public Concept of Land Acts. p41.

There was an estimate that the unearned income from land in 1988 was 1.7 times bigger than that year's GNP in South Korea (Kim Tae-Dong and Lee Keun-Sik 1989). That estimate simply shows how unreasonably high Korean land prices are. Rapid land price increases with subsequent capital gains by a small group of land owners caused a lot of social problems. The land problems not only created an anomalous property market but were also linked to the workers' depressed working spirit and the distortion of income distribution. In these circumstances, a series of radical land policy was produced by the government. That is the public concept of land.

#### **4.6.2 Public Concept of Land**

Private ownership of property is guaranteed by the Korean constitution. However, the private property right can be restricted for the public interest also by the constitution. Given the present complex land problems, the Korean government enacted a series of acts emphasising the aspect of the public interest of landownership while ensuring the right of private ownership. A series of new land policy to reinforce the public concept of land is based on four basic acts, all established in 1989: the Building Lot Ownership Limitation Act, the Betterment Levy Act, the Tax on Excessive Profits from Land Act, and a new Local Tax Act which includes the Comprehensive Land Tax.

##### **4.6.2.1 Building Lot Ownership Limitation**

The essence of this act is to regulate the limits of housing lots owned by both individuals and corporations mainly in the big cities and to impose charges on the land above certain limits if the owners do not sell the land within 2 years. The limits are 660m<sup>2</sup> (200 pyong) in Seoul and 5 direct jurisdiction cities, 990m<sup>2</sup> (300 pyong) in other cities, and 1,320m<sup>2</sup> (400 pyong) in other Urban Planning Areas. The charge rates are annual 4 to 11% of the publicly notified land prices of the building lots above the limits. Empty building lots (or empty land) are



also the objects of this act. The criteria are so complex, but important in understanding the concept of vacant land in the thesis, that they are explained in the Appendix (see Appendix C).

Although the purpose of this act is to prevent an excessive landownership and it has worked as expected, it has some side effects in terms of rational urban land development. If the landowners who have building lots above the limits neither submit development plans nor use the lots according to the plans for the portion of the land above the limits within two years of acquisition, local authorities have a right to invite a third party to develop the land. This act as well as other "public concept of land" acts inevitably encourages an unnecessary and ill-considered development of urban land.

#### **4.6.2.2 Betterment Levy**

Although there are a number of methods to collect the betterment from land development, such as capital gains tax, beneficial rates, plot deductions for public land in Land Readjustment Projects, and the excessive landownership tax, they did not work properly or were not sufficient to collect windfalls. Betterment levies are charged on 11 development projects such as housing lot development and industrial estate development whose area is more than 3,300m<sup>2</sup> in each. The charges are levied after the completion of the projects concerned and to be paid within six months. The amount of charge is calculated as follows:

amount of charge = (land price after development - land price before development - normal land price increase portion - development costs) \* 50%.

#### **4.6.2.3 Tax on Excessive Profits from Land**

The principle of this tax is to collect, per 3 years or one year in special speculation areas, 50% of the excessive profits from idle land if the idle land

prices rise beyond the normal land price increases. But the idle land defined in the act is different from the ordinary meaning of the word. It includes not only empty land but also villas and golf courses, for example. The emphasis of the act is placed on the land owned by corporations, which is not related to their business. But this act, contrary to its original objectives, has caused an overheated construction boom due to the unnecessary development as a way of escaping the burden of taxation.

#### **4.6.2.4 Comprehensive Land Tax**

The characteristic of this tax is to apply a progressive land tax to each landowner based on the total amount of land nationally owned by the same landowner. This tax enforced in 1990 actually combined the previous property tax on land and excessive landownership tax. For this purpose, all the national land has been classified into a database made by a computerised network system.

But some problems have occurred: firstly, too many exemption cases are there in the name of public interests; secondly, a variety of different rates are applied according to the land uses, which could distort a rational land use; thirdly, to evade the heavy tax, many have hurried to build any buildings on the empty land causing building material shortages, construction workers shortages, and making employees in other industries to demand a sharp increase in their wages; finally, the administrative processes for calculating and collecting the tax are so complex.

#### **4.6.3 Public Parks and Green Areas in Seoul**

Public parks and green areas of Seoul are now included in the consideration of land problems. Seoul was originally abundant in green areas and surrounded by thick forest. Except for the Green Belt designated in 1971 around Seoul,

many of the green areas have been destroyed during the rapid urban sprawl with only a small proportion of the area preserved as public parks. The recent housing policy of 2 million housing development project shows that the Seoul city government is eager to secure enough housing lots through the release of the green areas.

There are three types of green areas in Seoul: green zones as one of the zoning areas under the Urban Planning Act; Development Restriction District called Green Belt; parks under the Urban Parks Act. In 1989, the area of green zones within the Urban Planning Area of Seoul consisted of 50.5% of the area of Seoul. Meanwhile 74.4% of parks in Seoul are composed of urban natural parks and national parks, which means few community parks are available to the citizens.

## **4.7 ENVIRONMENTAL CONCERNS**

Big cities all over the world have their own environmental problems. Seoul is no exception. In the 1960s, the environmental conditions of Seoul were already deteriorating (Kwon Sook-Pyo 1986). The conditions were further exacerbated in the 1970s and 1980s. The process of environmental deterioration in Seoul is closely linked with the socio-economic transformation of Seoul and South Korea as a whole. This section shows how widespread the environmental problems of Seoul are, focusing on the recent environmental movement, environmental conditions, and institutional defects.

### **4.7.1 Environmental Movement**

The environmental movement in South Korea is a recent phenomenon compared with other developed countries. Of course, there were already some of government sponsored environmental conservation organisations such as

"the Korea Central Council for Environment Preservation" in the 1970s. But the private environmental organisations only began to appear in the early 1980s mostly started by the leaders of the student movement. Since the late 1980s, various environmental organisations gathered momentum with their own expertise and budgets and the number of similar organisations has rapidly increased.

In September 1988, a private environmental group called "the Pollution Banishment Movement Union" was established. The main aims of the organisation are to demonstrate against the development of nuclear power stations and the construction of pollutant producing industries. In June 1989, an environmental expert group called "the Environment and Pollution Study Club" was inaugurated. The objectives of the club are to research into various pollution cases adopting a scientific approach and to disseminate the results to the people concerned. "The Friends of Nature" created in April 1990 is unique in its effort to combine the oriental philosophy of nature and ecology. Beside these organisations, there are a number of active academic societies such as "the Environmental Law Society", "the Environmental Education Society", and "the Environmental Economics Society". Additionally there are other active organisations such as "Korean Association of Housewives Club" and the "YWCA". According to the Government publications about the number of environmental organisations, in 1991 there were 107 organisations including 45 registered legal organisations, 25 private organisations, 20 unregistered, and 17 environmental academic societies.

#### **4.7.2 Air Quality**

As recently as 1992, the World Health Organisation and UN Environmental Programme published the results of their examinations into 20 mega-cities of

the world (Guardian 4 December 1992), in which Seoul was reported to have the dirtiest air in the world along with Mexico City, Cairo and Beijing. The same sort of report published in 1988 by the same organisations identified Seoul as having the fourth highest SO<sub>2</sub> pollution level, and in 1985 Seoul had the highest SO<sub>2</sub> pollution level in the world (Sindonga March 1989). As traffic increases and population grows, air quality of Seoul is rapidly deteriorating.

According to the Environment White Paper 1990 (the Ministry of the Environment 1991), sulphur dioxide (SO<sub>2</sub>) emissions of Seoul reached its peak in 1980 at 0.094 ppm, which decreased to 0.054 ppm in 1986, 0.062 ppm in 1988 and 0.051 ppm in 1990. But the 1990 level is still above the environmental quality standard of 0.05 ppm.

Dust is another problem in Seoul: 150 g/m<sup>3</sup> in 1990 was just the same as the environmental quality standard of 150 g/m<sup>3</sup>. But in 1984 when the dust level was firstly measured according to the standards, the level was 210 g/m<sup>3</sup>. Those figures are, however, misleading because the daily standard is 300 g/m<sup>3</sup>, and that is more important than the annual average.

In the case of ozone, particularly in the Zamsil and Bangbae areas, the southeastern part of Seoul, the pollution level reached 0.206 ppm in 1990, which was more than double the safety standard (0.1 ppm). As far as acid rain is concerned, Seoul is the worst city in South Korea. As acid rain is defined as rain whose pH is less than 5.6, the levels in Seoul have always been below that on average: from 5.5 in 1985 to 5.0 in 1990. Particularly in 1990, during the winter months, the levels were 4.2 in January, 4.3 in February, and 4.1 in March.

Experts point out that irresponsible fuel policy is one of the causes of this problem: briquets as the main fuel for heating and bunker C oil for industrial

fuel. Another source of air pollution is car emissions. Car emissions are one of the most serious air pollution in Seoul. As recently as November 1990, 1.16 million cars (36% of national total) were in Seoul worsening the quality of air.

#### **4.7.3 Water Management**

Everyday 9 million tons of household wastewater flow into the Han River through 34 streams converging to the river. Waste water from more than 3,000 manufacturing factories flow into the river with an amount of 2.4 million tons a day. The excessive amount of trihalomethan (THM), a carcinogen, with a level of 0.23 ppm above the standard of 0.1 ppm, was detected in Yungdungpo Drinking Water Reservoir in 1990 (Jungang-Ilbo newspaper 26.11.1990). This incident drove people to use water filters, buy mineral water or get water from mountain springs.

The Han River is the main source of drinking water for Seoulites. After the completion of the Han River Comprehensive Development Project, the quality of Han River water seemed to have fully recovered. But soon after, it began to deteriorate, and now dead fish come up to the surface. According to the National Survey on Environmental Conservation by the Ministry of the Environment (1988), only 6.7% of people were reported to drink tapwater unboiled.

#### **4.7.4 Waste Disposal**

In South Korea, throwaway-product industries are flourishing. Among the items of the throwaways easily identified in the kitchen, for example, are: dishclothes, rubber gloves, wooden chopsticks, teacup mats, lunch-boxes and side-dish lids. There are many other items such as shampoos, hair towels, paper soaps, razors, nappies and underwears. More detailed statistics of throwaway-

products would show that South Koreans are living in a society where the "throwaway culture" is widespread: in 1990, 3.32 billion tin cans, 2.8 billion vending machine cups, 7.3 billion drinking packs, 619 million instant noodle bowls and 6.6 billion wooden chopsticks were consumed. Even throwaway cameras have caught on, and about 1.3 million of them were sold in 1992. In 1991, the average amount of household waste per people per day in South Korea was the highest in the world with 2.3 kg, which was much higher than 1.3 kg of the USA and 1 kg of Japan (Donga-Ilbo newspaper 24.6 1992).

In Seoul, the amount of waste has rapidly increased as a result of the improved standard of living and the changing life styles. But most of the waste is disposed of at a landfill site. For example, in 1989, 29,131 tons of solid waste were landfilled everyday while 388 tons were recycled and 38 tons were incinerated. As the only landfill site inside Seoul is reaching its full capacity, the Seoul government is now making a bigger dump site outside Seoul.

#### **4.7.5 Law and Institutional Shortcomings**

The Korean government enacted the Environment Conservation Act in 1977, which was the successor of the Pollution Prevention Act of 1963. The contents of the 1977 act seem to be deficient because it concentrates largely on the aspects of pollution prevention, not on the whole system of environmental conservation. Of course, there are more than 50 acts related to natural protection in South Korea such as the Birds Protection and Hunting Act, the Natural Parks Act and the Cultural Assets Protection Act. All these acts have something in common in terms of designating special areas and restricting certain activities within these areas. At present 16 central government ministries are involved in environmental management, and this situation makes it difficult to carry out a consistent environmental policy. Therefore a more efficient and

cooperative government structure is urgently needed for the effective management of the environment.

The Environment Impact Assessment (EIA) of South Korea was put into practice in 1981 by the Ministry of the Environment for the purpose of preventing environmental destruction and pollution caused by various development projects. It has been greatly criticised as a means of blocking public complaints in the wake of the implementation of large-scale projects rather than as a proper procedure to promote environmental conservation. Another criticism of EIA is that, in the process of the preparation of an EIA, little chance of public participation has been given to the residents concerned. Although the evaluation method of EIA should be different as the conditions of the locations of projects change, the contents of EIA are largely the same across all the development projects. Furthermore, the regulatory orders based on the results of EIA have no realistic legal power. In conclusion, the EIA system which has been implemented for the last 10 years in South Korea can be said not to have settled down yet.

## 4.8 CONCLUSION

Seoul is a historical city. But except for the city centre, Seoul is, in its strict sense, an unplanned city. The hectic growth of Seoul during the last 30 years is a mirror image of economic growth in South Korea. It can be said that most of the social and environmental problems in Seoul represent those of South Korea as a whole. In terms of social conditions, issues about the elderly and leisure will be new areas of concern for planners and policy makers in the near future. In the meantime, the recently reinstated local autonomy system will have a variety of effects on every aspect of Seoul.



Although there is a planning system to regulate land use and development, the system lacks discipline and efficiency. While British town planning has developed from the concerns about public health and housing, Korean urban planning has developed in the interests of public order and controlled development. As far as the planning system of South Korea is concerned, it is very similar to the British one although the American planning system is heavily introduced. For example, Green Belts and new towns are not so different in principle from those of Britain.

The objectives of planning in Seoul have been based on a single proposition: development. All the social and economic resources as well as the political and administrative systems were mobilised to achieve a divine goal: economic development. But the price is not so cheap. Such land problems as an overheated land speculation and an anomalous property market can be said to be the side effects of the rapid physical growth of Seoul. Although the subsequent land policies seem to solve the land speculation problems, they appear to induce an unnecessary development without proper planning considerations. On the other hand, every sort of environmental pollution gives the policy makers and planners in Seoul a lot of trouble, raising questions of what the seemingly successful economic growth achieved.

Under those circumstances, city farming on vacant land in Seoul occurred. Although some may argue that the issue of city farming is trivial, the author insists that a lot of fundamental urban problems developed during the last 30 years, particularly in Seoul, can be found in city farming. The next chapter will explain what city farming is and how it happened, before setting up a model on which the case studies of this thesis will be based.

# Chapter 5

## *City Farming*

### 5.1 INTRODUCTION

Weber (1960 p66) notes that a city is, if economically defined, "a settlement the inhabitants of which live primarily off trade and commerce rather than agriculture". But he acknowledges that "the relation of the city to agriculture has not been clear cut" (ibid. p70). If, as he suggests, the larger the city the less the opportunity of using land for its own food supply (p71), city farming that will be discussed here seems to be a refutation of that proposition.

Mumford (1961) writes that the residents in the medieval town of Europe had private gardens behind their houses and practised rural occupations within the city.<sup>1</sup> Walters (1973 p19) says, in his book *Ecology, Food & Civilisation*, that "the transition from food-collecting, hunting and fishing towards food-growing was not, of course, immediate even in the pioneer areas, and it is thought that the first experiments were of a rather more horticultural type in the nature of the kitchen garden". From this point of view, city farming being discussed in this thesis is a more natural and ancient form than the extensive agriculture in rural areas.

However, city farming is not past history but still visible and widely practised in modern times. For example, there have been suggestions of city farming as one of the best alternatives for a temporary use of vacant land especially from

the environmental point of view (Nicholson-Lord 1987; Davidson 1988; Gordon 1990) or as a way of landscape architecture (Hough 1984; Choi 1988). But most of them who argue for the benefits of city farming seem to make little effort to clarify the concept.

The aim of this chapter is to describe what city farming on vacant land in Seoul is. From the realist point of view, the description of a research object is crucial because to know what and how is a precondition to examine the "why" question. This chapter firstly defines city farming before reviewing the experience of other countries in order to show that city farming is a universal phenomenon. It then discusses the situation of vacant land in Seoul. As a necessary condition for the existence of city farming in Seoul, vacant land is the basis for further examination of city farming. Here the definition and the occurrence as well as other characteristics of vacant land in Seoul are discussed. The next section examines the history and some examples of city farming in Seoul revealing unique characteristics of the activity. Finally it develops a model on which the analysis of the causal mechanism of city farming is based.

## 5.2 DEFINITION

In a case study like this qualitative research, what matters is not the incidence and frequency, but the concept and category of the research object. A clear definition of city farming is thus essential for the successful testing of the hypotheses suggested in Chapter 1. As mentioned in the Introduction, city farming as a research object is many-sided, that is, concrete. For practical research, an abstraction is required to see a particular one-sided aspect of research object. In other words, conceptualisation is a way of closure for social research to be possible.

The meaning of city farming in general seems to be any agricultural activities happening within the boundaries of cities. As the following discussion shows, however, that is not so simple. Generally speaking, city farmers can be classified into 4 categories:

- 1) **Backyard farmers:** They cultivate their own backyards mainly for leisure and usually consume their produce themselves. This category includes such activities as vegetable gardening on terraces or balconies and farming on rooftops.
- 2) **Squatting farmers:** They cultivate vacant land usually near to their homes with or without permission from the landowners of the vacant land, but with no legal title. They have a variety of purposes: leisure, health-keeping, self consumption, a supplement to their low incomes, and pocket money earning by selling part of the produce, for example.
- 3) **Commercial farmers:** They grow crops, vegetables, flowers, and even livestock and fish commercially on agricultural land within the boundaries of cities to sell their produce. Commercial farming is usually practised in urban fringe areas.
- 4) **Allotment farmers:** They cultivate allotments legally purchased or rented. In terms of plot size and leisure orientation, they differ from commercial farmers but are similar to squatting farmers. The main difference from squatting farmers lies in the legality of the cultivation.

1), 2), and 3) categories above can be easily identified in Seoul, while category 4) is a rare case in Seoul.<sup>2</sup> Category 2) represents the city farmers in Seoul and is the subject of the case studies. Although the thesis' main interest is in the city farming as a form of squatting, and the case studies deal only with category 2),

for a clearer understanding of the research subject all the categories set out above will be discussed in this chapter. This categorisation is suggested for a focused case study in Seoul and for further conceptualisation in the following sections.

Based on the classification above, the thesis defines city farming as "a farming activity by squatting on vacant land in the urbanised areas within the boundaries of cities, carried out by the people who are not commercial farmers". In other words, city farming dealt with in the case studies is a farming activity on vacant land without having legal title and without paying any rent.

More specific explanations for the terms used in the definition are now added. The reason why the term "farming" instead of "agriculture" or "farm" is used is that the thesis is interested not just in a static event but in a dynamic activity in a social context. The concept of urban agriculture is mainly concerned with the aspects of production and consumption without any implication of the community or social activity. Therefore in the thesis, urban agriculture and city farming are understood differently both in context and in meaning. Farming includes both growing crops such as vegetables, fruit and cereal and raising livestock. The meaning of vacant land is as defined in Section 5.4 (see page 145). Urbanised areas mean residential, commercial and industrial areas excluding Green Belts, mountains and green areas. Commercial farmers mean the people whose farming work is the main source of income and is not a leisure activity. The concept of city farming will be further refined and clarified in the following discussions in this chapter. The first attempt at this is to recognise city farming in general as a universal phenomenon.

### 5.3 CITY FARMING AS A UNIVERSAL PHENOMENON

This section shows how universal city farming is in time and space. Before discussing this topic, it should be made clear that although city farming has been categorised into four types, in some cases the differences are not so clear-cut. One of the purposes of the definition made above is to narrow down the scope of case study object. While the focus is always on the city farmers as "squatters" in Seoul, city farming in general must be understood broadly because different types of city farming still share many common characteristics.

From the point of view of time, as long ago as in the Mayan civilisation, the Mayan cities produced grain, fish, fruit, and vegetables within their boundaries (Smit 1989); yet as recently as in the 1980s, there were city farming voluntary organisations in the USA such as the Boston Urban Gardeners and New York City's Green Guerillas (Spirn 1984; Luz 1987). On the other hand, in terms of space, the phenomenon can be identified in nearly every city in the world: from the cities of highly developed countries like Berlin as a form of children's farm (Milchert 1984), Munich as a form of *kleingarten* (Farm Business Management 1992); Tokyo in Japan as a form of urban agriculture (Masaji 1987; Latz 1991); and Bristol (Davidson 1988), Newcastle (Crouch and Ward 1988), and London (DOE 1990) in Britain as forms of allotment, community garden, and urban farm (Wardle 1983; Nicholson-Lord 1987); to the cities of less developed countries such as Nairobi in Kenya (Hardoy and Satterthwaite 1989) and Lusaka in Zambia (Rakodi 1988); Mexico City in Mexico (Hardoy, Mitlan and Satterthwaite 1992); Calcutta in India (Furedy 1990); Shanghai in China (Hough 1984; Deng 1992); and Jakarta in Indonesia and Bangkok in Thailand (Smit and Nasr 1992).

Although all those forms of city farming look similar in appearance, they have developed in unique social and economic conditions of the respective countries. This section thus investigates various forms of city farming all over the world. One of the best examples of city farming is the allotment gardens of the United Kingdom.

### **5.3.1 Allotment Gardens**

Allotment gardens have been a familiar and ubiquitous feature of the British landscape for almost two hundred years. They can be seen on the fringe of towns and villages, small and large, and even on sites in the city itself. This section briefly reviews the history of the allotment in the U.K mainly based on Crouch and Ward (1988) and others (Thorpe 1969; Bullock and Gould 1988).

The term "allotment"<sup>3</sup> was first coined to describe parcels of land which were divided up between landowners under the Land Enclosure Acts of the late eighteenth and early nineteenth centuries. A major consequence of the Enclosure Acts was to deprive the landless poor of the right to common grazing which they had held for centuries. By 1833 42 per cent of all parishes in England and Wales had allotment schemes, and by 1850 allotments were provided by individuals or public bodies as acts of charity so that the poor labourers might supplement their low incomes by cultivating crops in their spare time. Between 1850 and 1865 allotments were reassessed. Many authorities, including the Poor Law Commissioners, thought that the provision of allotments should be left to private philanthropy. The 1887 Allotments Act required local authorities to provide allotments for the labourers if land could not be found privately. The Smallholding and Allotments Act of 1908, the basis of the modern allotment system, compelled local authorities to provide allotments for the labourers

where it could not be obtained privately, and the provision of allotments in urban areas began to increase markedly.

In 1916, in the depth of World War I, The Defence of the Realm Act enabled local authorities to secure as much land as was required for allotments and to take over vacant land for allotments without the owners' consent. The war introduced a vast new population, mostly an urban one, to vegetable gardening.<sup>4</sup> As Thorpe (1969) noted, the First World War gave the allotment movement an urban emphasis it has never since lost. In 1919, it was estimated that about 7,000 new applicants were coming forward each week, but the number of vacant plots was not enough to accommodate them.<sup>5</sup>

Between the two World Wars the number of allotments declined and land requisitioned during World War I was returned to its owners, as the need for industrial and domestic land grew. On the other hand, various acts of Parliament improved security of tenure and made allotments available to any applicant. During the depression of the 1930s, a national scheme known as "*Allotment Gardening for the Unemployed*" was set up to provide the unemployed with allotments at low rents with subsidised tools, seeds and fertilisers. One of the reasons for the small boom of allotment in the mid-1930s was the creation of the Land Settlement Association, whose principal aims were to turn the urban unemployed into smallholders and to provide stock allotments, giving an opportunity for those people to keep animals like pigs and poultry on their plots, providing cheap food and a ready supply of manure.

At the beginning of World War II, a scheme similar to that of the previous war was initiated to cultivate any spare land. A Cultivation of Lands (Allotments) Order 1939 empowered councils to take over vacant land. The Ministry of Agriculture organised *Dig for Victory* exhibitions all over the country and urged



local authorities to set up demonstration plots, which proved to have good educational, propaganda, and psychological values.<sup>6</sup> It was so successful that by 1945 the *Dig for Victory* allotments were estimated to produce 10% of all the food produced in Britain.<sup>7</sup> *Dig for Victory* was renamed *Dig for Plenty* in 1947, when the role of allotment gardening to ease the post-war food shortages and rationing was recognised.

Since 1945 the demand for allotments had again steadily declined. The cheaper vegetables, better living standards, the development of other leisure activities and the demand on land for building have all contributed to this decline. Under the 1950 Allotments Act, every local authority has an obligation to provide four acres (1.6 hectares) of allotments for each thousand of its population. In reality this has never been achieved. Pressure for development made all allotment land vulnerable, and a decline in interest made their loss harder to resist.

As reviewed above, the image of allotment gardening was associated with poverty, charity, and wartime needs. Crouch and Ward (1988) suggest that the intention of *Thorpe's Committee of Inquiry into Allotments* must have been to sort out a backward-looking activity, selfishly squatting on valuable urban land. But neither the government nor Thorpe expected the new drive for the greening of the cities in the 1970s and 1980s. The demand for allotments was affected by a new ecological awareness in the 1960s linked with the anti-consumerism and the paradox of soaring land prices accompanied by growing urban land vacancy.

City farming in Seoul as defined previously is quite different from the allotments in Britain in terms of history and scope. But it can be said that city farming in Seoul is a kind of allotment without legal basis; similar partly in

having an aspect of squatting in its development, and partly in its being related, albeit more implicitly, to the trend of greening the cities.

### 5.3.2 Similar Concepts

Communities in many cities all over the world use food growing plots to restore greenery to barren neighbourhoods and to supplement the diets and incomes of inner city residents. Residents in Copenhagen cultivate allotment gardens at the city's edge, and schoolchildren in the Hague learn to grow vegetables in communal tracts (Lowe 1992). Urban gardens are common in many East European and former Soviet cities too. In Third World countries, city farming is more widespread. More than 60% of families in squatter areas in Lusaka, Zambia are active in urban agriculture which helps reduce soil erosion, promotes proper soil drainage and helps reduce dust and air pollution in the urban environment (George 1990). In Kenya and Tanzania, two out of three urban families are engaged in farming (Smit and Nasr 1992). In China, at least 85% of the vegetables consumed by urban residents are produced within urban municipalities. Shanghai and Peking are self-sufficient in vegetables, producing over 1 million tons per annum (Hough 1984).

An allotment association arranged to use temporarily vacant derelict land for food production on Long Island, New York (Douglas 1983). New York now has 700-800 community gardens. More than 2 million gardeners in U.S. cities, including many elderly, young, and disabled workers, tend neighbourhood plots and solar greenhouses. In a particularly successful gardening project initiated by a regional food giveaway program in Peoria, Illinois, people who used to receive free food are now cultivating vegetables for the same program (Lowe 1992). It is now clear that city farming is a global phenomenon regardless

of ideology and North-South division. But still the types of city farming are complex in meaning and various in system needing further clarification.

#### **5.3.2.1 Urban Farms (City Farms)**

In England, city farms are community projects centred on farm animals and gardening, situated on areas of derelict land or underused land in the centre and on the edges of towns and cities. Their aim is to provide facilities and opportunities for city dwellers to become actively involved with growing and living things every day. In practice, a city farm is not only a park, a garden, an allotment garden and a nature reserve but also a school, a workshop, a playground and a social group. In some cases it is the focus for an entire neighbourhood.<sup>8</sup>

City farms began in Britain in protest by squatting in disused stables, sheds and allotments above a railway embankment in Kentish Town, north London in 1971 (Nicholson-Lord 1987). In 1976, when the city farms advisory service was launched by the Inter Action Trust, there were some projects like Surrey Docks and Freightliners, all in London. In 1980, the National Federation of City Farms was launched with 33 member urban farms. In 1989, there were 55 City Farm projects in the United Kingdom and more groups were in the early stages of planning others.

The decline of inner cities in the post-war years and the failure of large outer-city council estates led many people to look critically at the environment where children are brought up. Many have taken positive steps to enrich the educational, social and welfare opportunities which the local environment affords. Over the past eight years city farms and community gardens have been established in most urban areas in the United Kingdom. The community groups responsible for these developments have turned to their advantage some of the

underused land in these areas. Land has been restored and buildings renovated. Now communities have been able to acquire land to convert into urban farms, reducing vandalism and encouraging children to take an interest in the farm and its animals. The importance attached to the greening of cities has long been recognised but city farms are unique because they are pioneered by and run by local people in their own neighbourhoods.

Various crops and fruit are usually grown in city farms, often to help feed the animals, but also for use by city farm members or for sale (TCPA Community Technical Aid Centre 1986). Those crops and fruit are generally grown by organic methods to produce wholesome produce. Some big city farms cater for large animals such as cows and horses, sometimes providing an opportunity for people to learn to ride for a reasonable charge. All farms regardless of size have some farm buildings, and well established farms often have rooms for meetings, social functions and offices as well as animal accommodation, and toilets.

#### **5.3.2.2 Community Gardens**

Community gardens are similar to city farms but usually on smaller sites and without the livestock element. Community gardens are small parks which have been created out of waste land for local uses with the help of local people (TCPA Community Technical Aid Centre 1986). They can vary in size from a small gap site where a single house has been demolished to a larger area of open derelict land. The projects involve residents and community groups in the design, planting and maintenance of the open space. It sometimes includes a garden for old people, a place for children to play, an open air theatre, workshops and planting of trees, shrubs and grass.

On the other hand, in the US there is growing interest in community gardens. In the past decade, hundreds of acres of vacant lots in US cities have been transformed into vegetables and flower gardens. Some are the outgrowth of spontaneous community interest, others the direct result of community organizations (Spirn 1984). Although the phenomenon of community open space was formerly described by critics as a short term phenomenon, the movement has now reached such a scale that in cities such as New York, Boston, Philadelphia and Oakland, they now represent an alternative park system (Luz 1987). Surveys in recent years have shown that vegetable growing is the most popular leisure activity in the USA, even though 18 million households have no space to garden. In 1983, some 3 million community gardeners were tending around 10,000 gardens (ibid.). In Philadelphia, for example, many of the 450 projects are supported by Pennsylvania's *Urban Gardening Programme*. Elsewhere similar organizations are attached to parks departments. As a rule each community garden is represented by a street or block organization which is supported in turn by the sort of umbrella organization referred to above. These are in turn linked in the nationwide American Community Gardening Association. In 1983, the New York City Neighbourhood Open Space Coalition, represented 450 individual projects incorporating a total area of some 55 hectares (Luz 1987).<sup>9</sup>

#### 5.3.2.3 Kleingartens in Germany

The history of the kleingarten in Germany begins from the 19th century as a leisure space for the poor labourers in the rapidly industrialised society. A doctor called Schreber (1808-1861) developed the kleingarten as a method of curing patients. During and after the second World War, the sheds in the kleingartens were used to make up for housing shortages and the vegetables produced on the plots were used for food supply. As urban air is deteriorating, the value of greens has once again been recognised, so are the benefits of

kleingartens. In Munich in 1992, for example, there were 47 units of permanent kleingartens and 28 units of temporary kleingartens with total of 8,132 plots. The size of each farming plot varies from the largest of 330 m<sup>2</sup> to the smallest of 100 m<sup>2</sup>. The application of artificial fertilisers and other chemicals is prohibited in the kleingartens. The vegetables harvested are not allowed to be sold in any way (Farm Business Management 1.1992).

### 5.3.3 Common Elements in City Farming

Now it is clear that city farming is a universal phenomenon. Although the forms and contexts of city farming are different from countries to countries, there are at least two things in common. Firstly, there is a close relationship between the growing interest in city farming and environmental concerns like urban nature conservation and greening of the cities. Without the appreciation of city farming as a desirable way of using vacant urban land, a variety of city farming in many countries would have either been dissuaded by local governments or been already terminated. Another thing which is common in all the cases is an economic aspect. The development of allotments in the UK was intimately related to a charity to the poor labourers although now leisure is the dominant purpose of taking up the allotments. Many of community gardens are being developed in the low income communities occupying vacant sites. The most common fact found in all forms of city farming is that they have originated from using derelict, underused and vacant sites of urban land. Not only the well organised allotments in the UK but also many community gardens in the US and other countries have their own history of squatting on vacant land.

Then a question naturally raised is why there are a lot of vacant sites in major cities all over the world and in Seoul in particular. As reviewed above and as

defined earlier, if city farming necessarily presupposes vacant land, then it is a prerequisite to know what vacant urban land means and how and why vacant land has occurred in the urban areas of Seoul where land prices are incredibly high and housing demands are still increasing.

## **5.4 VACANT URBAN LAND**

It is surprising and paradoxical to see a considerable amount of vacant land, large and small, in many cases unsightly, which is ubiquitous in the urbanised areas of Seoul (see Plates 5.1 to 5.6), where the need for housing is enormous and both land markets and the planning system exist to manage and secure the efficient use of land. Even if the issue of land vacancy is serious in itself with a lot of aspects and implications, this chapter deals with only relevant points for the thesis (for more in-depth studies, see Notes 10 and 11).

While there has been recognition of the problems of vacant land, what is not apparent is why this situation is now here in Seoul. The aim of this section is thus to examine the occurrence of vacant land in Seoul which is a necessary condition for city farming. It deals firstly with the definition of vacant land. Secondly some characteristics of vacant land in Seoul are discussed. Finally it tries to explain the occurrence of vacant land by focusing on urban development processes and land development methods.

### **5.4.1 Definition**

The literature referring to vacant land and similar concepts is large in volume and wide in content in western countries albeit under different contexts. Although there are a number of studies of US cases (Northam 1971; Jackson 1981) and a French one (Couch 1989), the most extensive and systematic studies



Plate 5.1 A Large Site of Vacant Land in the Middle of a Residential Area of Bangyi Dong



Plate 5.2 A Site of Vacant Land (24,925m<sup>2</sup>) in Block 10 of the Central Spine Area in Mok Dong District.



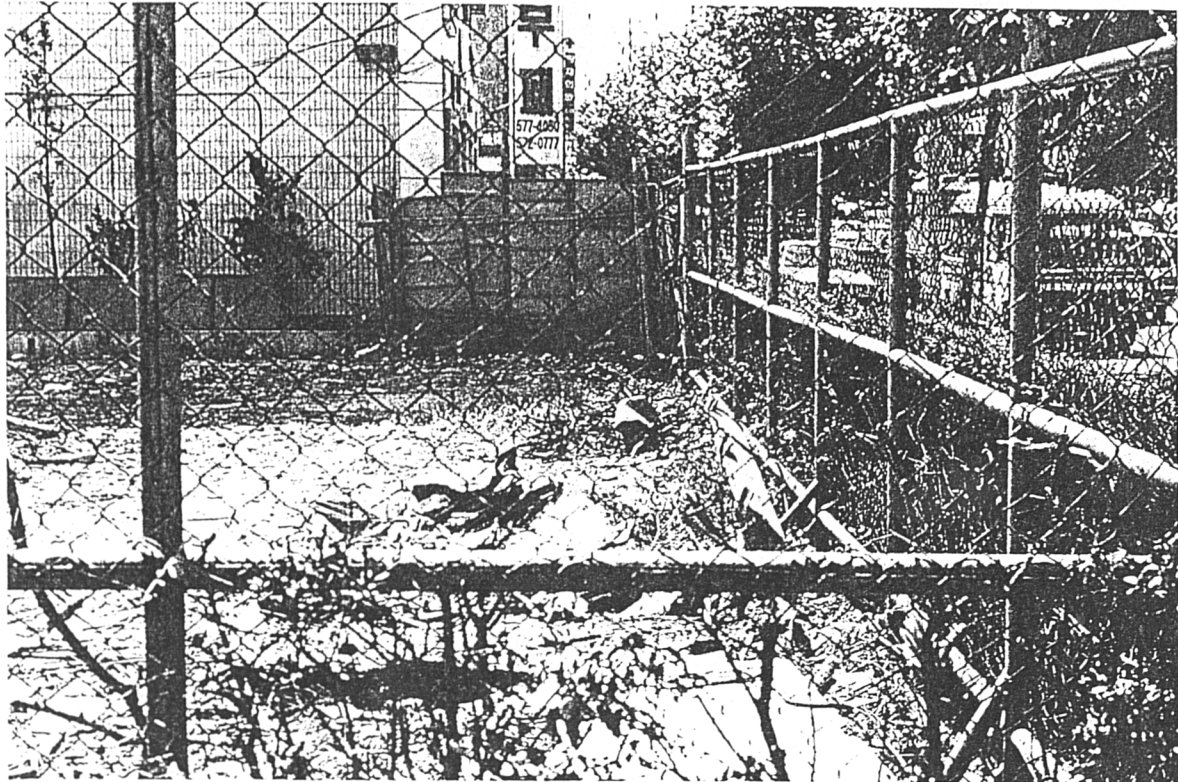


Plate 5.3 A Typical Site of Vacant Land in a Commercial Area of Yangjae Dong

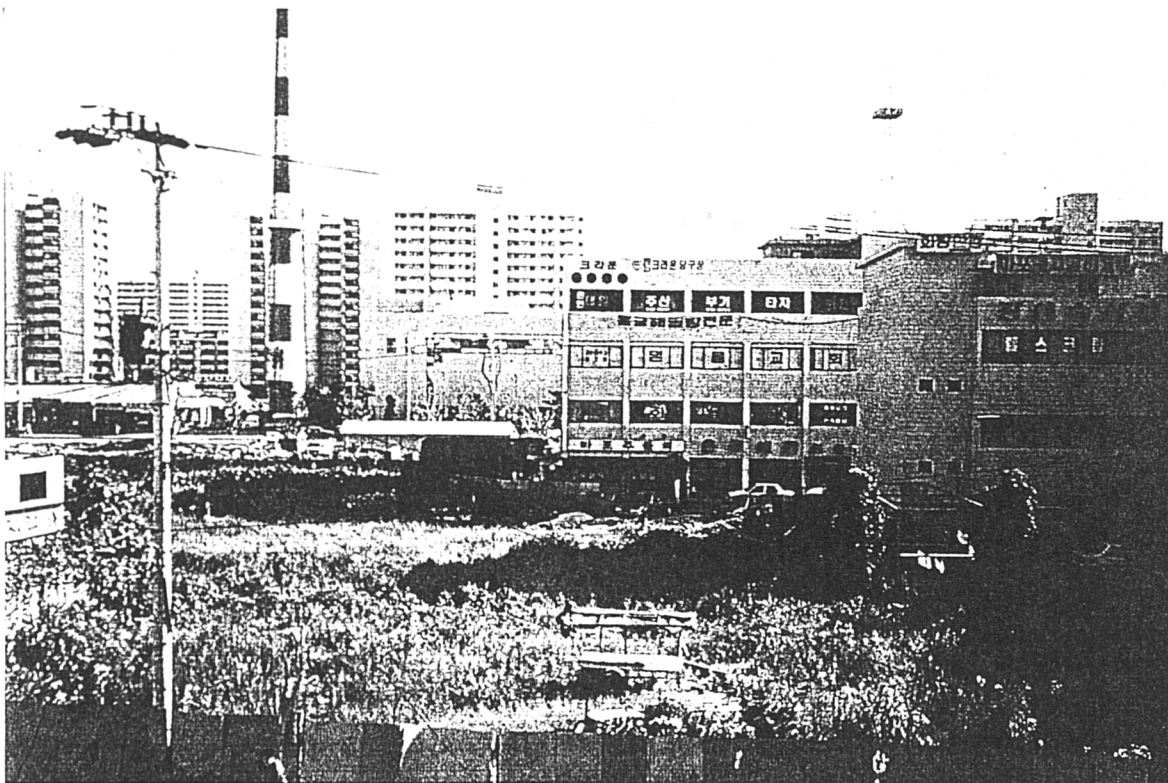


Plate 5.4 A Site of Vacant Land in front of Nowon Subway Station in Sangkye Dong.



Plate 5.5 A Site of Vacant Land in a Residential Area of Daerim Dong.



Plate 5.6 A Site of Vacant Land between Olympic Road and Yeoido Dong. Although There is a Plan to Develop This Reclaimed Site from the Han River, It is Left Idle for Years.

are mainly from Britain. The main concern with the land vacancy in Britain comes originally from the problems of derelict land due to the closing of mines and the disuse of other industrial facilities.<sup>10</sup> But the most serious concern in Britain has until now been about the inner city vacant land.<sup>11</sup> Bruton and Gore (1981) sum up three basic assumptions on which most studies are based:

Firstly, the existence of vacant sites in the urban areas is a fundamental problem; it is a misuse of valuable land resources.

Secondly, public authorities are largely responsible for the creation and continued existence of vacant land.

Thirdly, the unsightly appearance of vacant land is said to undermine confidence and thus the future development in the area, thereby accelerating further decline.

The concern of this section is with the vacant land in Seoul, which has a different socio-economic condition and, therefore, a different history from that of other countries so care must be taken when applying the Western experience to the case of Seoul. For instance, in South Korea, there was a vacant land tax as a local tax until it was replaced with the Tax on Excessive Profits from Land and other land taxes when the so-called "public concept of land" acts were introduced in 1989 (see Chapter 4). In Seoul, there is even "disguised" vacant land which can be easily identified particularly in the fringe area of Seoul (see Plates 5.7 to 5.12). Capitalising on the loopholes of land and tax laws before the introduction of the public concept of land acts, landowners developed their land as uses exempt from the vacant land tax in the laws in order to escape the burden of taxation, where uses are just temporary (see section 5.4.2.2).

There is some general literature on land vacancy in Seoul even if intensive studies are very few. One of the most prevalent perspectives is to see vacant

land as land stock for housing. The first research from this viewpoint was done on the rational utilisation of small-scale undeveloped land in Seoul (Chae 1983). There was also an attempt to develop a proper model of housing development for small-sized vacant land (Korea National Housing Corporation 1990) and a feasibility study of housing estate development for larger vacant land (Seoul City Government 1990b). The point made in these studies is that it is now time to manage internal urban space rather than outward sprawl.

There has been growing interest in the subject from other viewpoints. Jeon (1986) studied vacant land in a commercial district of Seoul focusing on some policy alternatives for the encouragement of using vacant land. There was a study on the factors affecting idling time before land development (Chang 1987), which used a statistical analysis method to find out locational and policy factors associated with variations in land idling time.<sup>12</sup> The study concludes that the length of idling time of development is firstly affected by land development methods employed by central government and secondly attributable to the delay in the provision of public facilities and urban services, and speculation by mostly absentee landowners. In addition to these studies, there were other studies: a research report proposing vacant land in the Seoul Metropolitan Area as a tourist resource (KOTI 1989); and a study on the transferred-sites of the city centre of Seoul (Keel 1990). But none of the studies above is concerned with environmental aspects. Moreover, none of the research above has referred to the causes of land vacancy. These limitations seem to come from their ambiguous definitions of vacant urban land.

Before proceeding to develop an analysis of vacant urban land, a clear definition is necessary for specific data collection and a meaningful explanation. There is a wide range of similar terms with different adjectives: derelict<sup>13</sup>, damaged, degraded, despoiled, disturbed, devastated, ravaged, unsightly,

contaminated, operational, underused, disused, unused, abandoned, neglected, dormant, idle, empty, waste<sup>14</sup>, scrub, residual, SLOIP<sup>15</sup> (space left over in planning), SLOAP<sup>16</sup> (space left over after planning), VIP (vacant industrial premises), and even unemployed. Although each represents its own specific area of concern, what all of these commonly describe is the state of land vacancy.

Vacant itself means "not occupied, not in use or empty" and is used to cover all the above conditions because it makes no inferences about the appearance of the land or the process of vacancy, which might otherwise give a false conception of the phenomenon (Burrows 1977). Indicating the sheer variety of definitions of vacant land and the large statistical variations between such definitions, Burrows (1978) defines that "vacant urban land is taken to be all land lying within the boundary of an urban authority which appears to be unused. It is usually distinguished by rough vegetation or gravel strewn surfaces, and only a small percentage is land recorded as officially derelict."

For the purpose of compiling Land Registers under the Local Government, Planning and Land Act 1980, vacant land is defined as that which "in the opinion of the Secretary of State... is not being used or not being sufficiently used for the purpose of the performance of the body's functions or of carrying on their undertaking". Chisholm and Kivell (1987) point out the problem of the definition above saying that even if the term is meant widely, its uses are restricted to land owned by public bodies so that the Registers exclude all privately owned vacant land.

On the other hand, in South Korea, idle land and empty land instead of vacant land are widely used. However, vacant land is generally understood as a broader concept which includes both idle land and empty land. Idle land is

defined in the 1984 National Land Use and Management Act and the 1984 National Land Use and Management Enforcement Ordinance as "the land that is vacant for more than 2 years and the area of which should be more than 660 m<sup>2</sup> in residential and commercial areas and 1000 m<sup>2</sup> in industrial and green areas within Urban Planning Areas, with other requirements for the areas outside Urban Planning Areas". Meanwhile empty land is defined simply as "the land on which no permanent building is built" with more detailed criteria for the empty land being set out in the 1989 Building Lot Ownership Limitation Act (for details see Appendix C). Various definitions of idle land and empty land available in South Korea are mostly addressed for either taxation criteria or legal control without any consideration of social or environmental aspects.

Generally speaking, vacant urban land is rarely specifically defined in documents or surveys and the estimates and types of vacant urban land recorded vary according to the purposes of the surveys. If, for example, the purpose is to assess land availability, then generally only sites above a certain size and with development potential are recorded. But, if the survey had an environmental bias, then even very small sites might be noted and the total amount of vacant land could increase and the number of vacant sites could also rise considerably.

As seen in Burrows' definition, the appearance and the comparison with neighbouring land use are thus very important. Although the conditions fit to every feature of land vacancy, the location of vacant land makes difference. A plot of vacant land beside a rubbish tip must be different from that in an office block. Meanwhile, there are cases where the appearance cannot tell the truth. As will be discussed soon, there is so-called disguised vacant land which is not vacant at all but the land use at the moment is not a proper one. This must be included in the consideration of vacant land. On the other hand, a time

dimension must be included in the concept of vacant land: a site of empty land which will be developed in a month cannot be classified as vacant land. Considering the time needed for planning permission and site development plan submission, and other elements, this thesis judges that the most suitable time condition for defining land vacancy is one year.

Therefore the definition of vacant urban land most appropriate for the thesis is that "urban land which is not being used or not properly used in comparison with the neighbouring land use level of intensity with no approved site development plan which will be implemented within a year". In this definition, the meaning of vacant land is somewhat different from idle land and empty land. Although the so-called disguised vacant land must be included in the definition, in reality it is hard to separate it from other normal land uses because the disguised vacant land is legal by law and usually has buildings on it. So for practical reasons and for the purpose of the research, the disguised vacant land will not be included into the amount of vacant land in Seoul. But this definition is practical in use and helpful in establishing a theory for urban land vacancy.

## **5.4.2 Characteristics of Vacant Land in Seoul**

### **5.4.2.1 The Amount of Vacant Land in Seoul**

Although it is hard to articulate the exact relationship between the amount of vacant land in Seoul and the number of squatting farmers, there is no question that vacant land is a precondition for city farming. It is even more difficult to work out the exact amount of vacant land in Seoul because every institute produces its own statistics based on its own definition. But a general picture can be given by estimation.



In 1990, there was 10.7 km<sup>2</sup> of land with no legal ownership in Seoul whose area was 605.4 km<sup>2</sup>, in which 7.5 km<sup>2</sup> on 4,602 lots were unregistered and 3.2 km<sup>2</sup> on 2,391 lots were ownership-unknown.<sup>17</sup> The land with no title, however, does not necessarily mean that it is now vacant (Donga-Ilbo newspaper 21.9.1990). Meanwhile according to a report by the Korea National Housing Corporation (1990), empty land in Seoul in 1989 was 17.8 km<sup>2</sup><sup>18</sup> which were 3% of the area of Seoul (see Table 5.1).

A survey called "A Feasibility Survey of the Potential Land for Housing Development Project 1990" estimates that there was 14.4 km<sup>2</sup> (2% of the area of Seoul) of undeveloped empty land in Seoul in September 1988, in which small-sized lots were excluded, focusing on the large lots suitable for housing development (Seoul City Government 1990b). The statistics in "Seoul Metropolitan Administration 1989" show that in the Urban Planning Area of Seoul - whose area is 708.4 km<sup>2</sup> and it is different from the administration area of 605.4 km<sup>2</sup> -, 11.2% (79.0 km<sup>2</sup>) was "undeveloped land" in the "developable land" while 46.1% was "undevelopable land" which was considered unsuitable for habitation (Seoul City Government 1990c). In this case, most of the undeveloped land is outside the city boundary even if it is inside the Urban Planning Area. Therefore it does not serve as a reliable source for estimating the amount of vacant land in Seoul.

Considering all the available statistics above, the most reliable statistic seems to be that of the Korea National Housing Corporation. It estimated that the area of empty land in Seoul in 1989 was 17.8 km<sup>2</sup>, 3% of the area of Seoul. According to the definition of vacant land in this thesis, this is obviously an under-estimation because it excludes small-scale vacant lots of less than 660 m<sup>2</sup> or the land left vacant for less than 2 years. The amount of vacant land which includes small-scale vacant lots and land left vacant less than 2 years but more than 1 year



# City Farming

Table 5.1 Empty Land of Seoul in 1989

Ku	Area (m <sup>2</sup> ) *	Land Use
Chongno	556,480	Residential
Chung	10,240	Residential
Yongsan	-----	-----
Seongdong	549,583	Residential
Tongdaemun	1,023,395	Residential, Green
Seongbuk	230,086	Residential
Tobong	2,198,614	Residential, Green
Eunpyong	203,689	Residential
Seodaemun	327,399	Residential
Mapo	3,179,974	Green
Kangseo	1,025,411	Residential, Green
Kuro	240,500	Residential, Industrial
Yeongdungpo	154,850	Commercial, Industrial
Tongjak	25,622	Residential, Green
Kwanak	184,940	Residential, Green
Kangnam	3,182,935	Residential, Commercial, Green
Kangdong	4,665,266	Residential, Commercial, Green
Total	17,756,984	

Note: Only sites of more than 10,000m<sup>2</sup> are counted.

Source: Korea Housing Cooperation. 1990. Pattern Development of Urban-Type Apartment and Its Application Strategy to Urban Development. p14.

must be much larger than 3%. However, there is one important thing which should be taken into consideration here: the implementation of the public concept of land policies. As already mentioned in Chapter 4, many landowners of empty land have hurriedly sold or developed their land to escape the burden of taxation imposed on empty land since 1990. This surely contributed to the decrease of the amount of vacant land although there are no statistics available to know the exact amount of that decrease. Therefore, taking account of all the statistics published relating to vacant land, around 5% of the area of Seoul (about 30.3 km<sup>2</sup>) can be roughly estimated to be vacant at present.

#### **5.4.2.2 Characteristics of Vacant Land in Seoul**

In South Korea, there is a considerable amount of disguised vacant land which can be easily identified. Disguised vacant land is a unique phenomenon of South Korean land use. During the fieldwork for the pilot study in 1990, a variety of disguised vacant land was recognised all across Seoul, particularly in the newly developed southern fringe areas such as Yangjae Dong and Seocho Dong. The types of disguised vacant land are various in size, location and use: from the most popular forms of parking lots and sports facilities such as tennis courts, golf driving ranges to the less popular ones such as brick manufacturing factories, tree seedling gardens, restaurants, car repair shops, and warehouses (see Plates 5.7 to 5.12). These facilities can be easily identified because, firstly, they are located in highly urbanised commercial or residential areas in which these land uses are unsuitable, and secondly, they tend to be untidy premises in temporary use typically with corrugated iron fences in marked contrast to neighbouring high-rise office blocks. The reason for this strange phenomenon is rather simple: to evade the burden of taxation caused by a vacant land tax introduced in 1974 as a local tax because those uses were exempt from the tax. Even though the vacant land tax is now abolished and replaced by the new



Plate 5.7 One of the Typical Disguised Vacant Land: An Unpaved Parking Lot in Yangjae Dong.



Plate 5.8 One of the Typical Disguised Vacant Land: A Tennis Court in Bongcheon Dong. The Lot in the Centre is Vacant While the Lot on the Right is Used for Both Parking Lot (on Sundays) and Tennis Court.

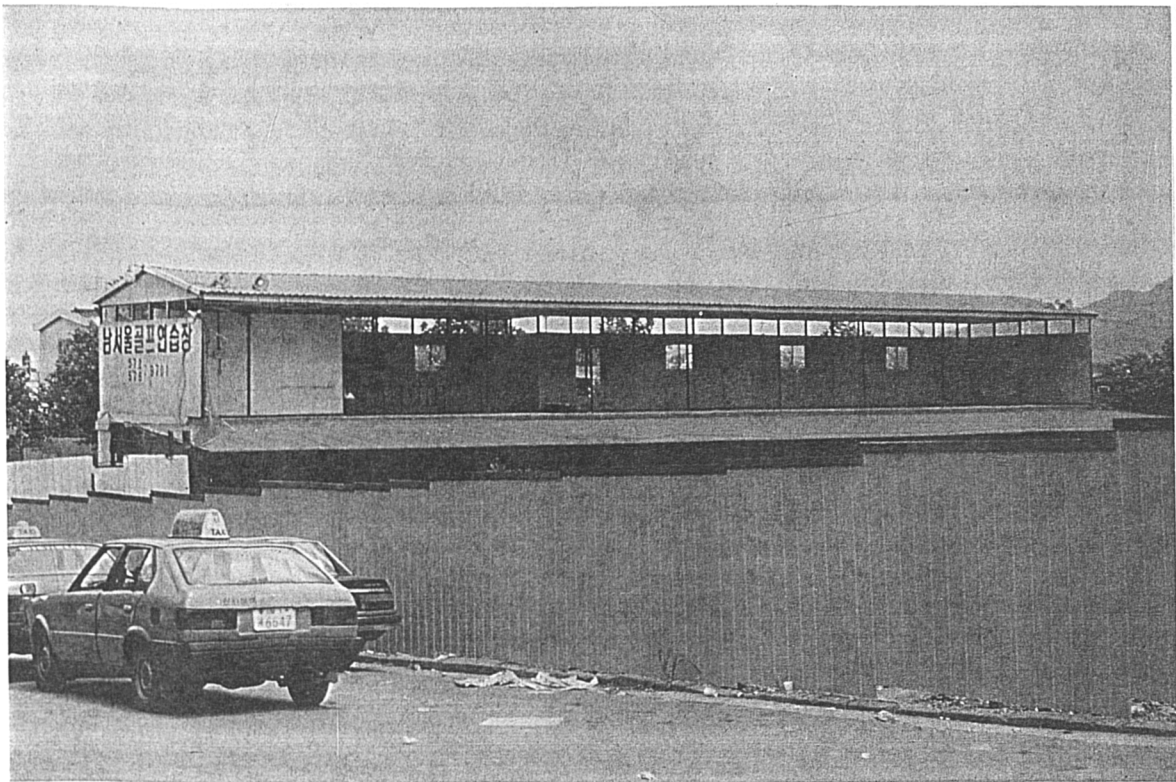


Plate 5.9 One of the Typical Disguised Vacant Land: A Golf Driving Range in Yangjae Dong.



Plate 5.10 One of the Typical Disguised Vacant Land: A Stonework Shop in Yeoksam Dong.

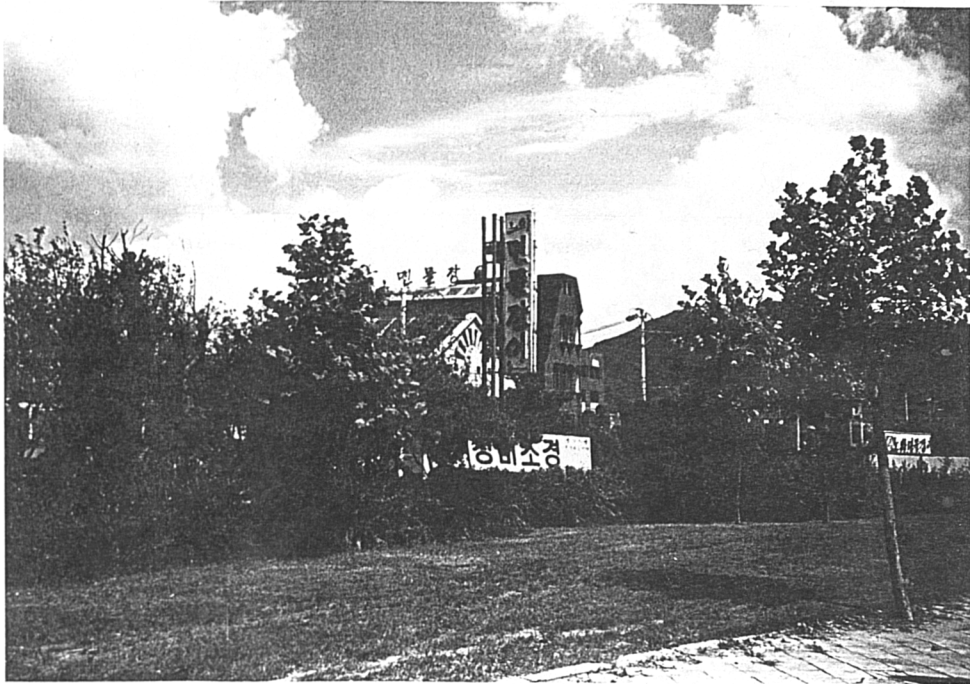


Plate 5.11 Two of the Typical Disguised Vacant Land: A Tree and Seedling Garden is in Front; the Building Behind is a Restaurant.



Plate 5.12 One of the Typical Disguised Vacant Land: A Car Repair Shop in Yangjae Dong.

Comprehensive Land Tax and the Tax on Excessive Profits form Land, the phenomenon still exists all over Seoul.

However, it can be argued that there should be a reasonable amount of vacant land as a land bank for the proper management of urban development, which is flexible enough to adapt to changing population ratios and the stage of economic growth in the future. Land vacancy is not a static but a dynamic concept in terms of both time and space. To reduce an unreasonably large amount of vacant land, and to keep that amount under a certain desirable level and to deter the flourishing of disguised vacant land which is unhealthy, and to take into consideration the environmental aspect of urban land use, it is high time to consider the ways for a temporary use of vacant land. In fact, according to the pilot study, vacant lots in residential areas such as Bangyi Dong were used temporarily in a variety of ways: rubbish tips, parking lots, and farming sites. However, they were all in a mess and not organised, and hence possible health hazards to the residents of the community. So there must be a desirable way of using the sites of vacant land albeit temporarily. City farming seems to be one of the best options for the control of land vacancy.

The examination of the occurrence of vacant land in Seoul can give a firm basis for practical policy options in relation to vacant land in general and city farming in particular. The next section centres on two aspects of the occurrence of vacant land in Seoul: urban development stage and land development policy.

#### **5.4.3 Occurrence of Vacant Land in Seoul**

The problem of vacant urban land has been a policy concern since the 1970s and has been described as an inefficient use of resources. The most crucial questions to be raised now are: why from the beginning did vacant land happen in

Seoul?, when?, and how? To find out the causes of vacant land in the loopholes of laws, the inertia of institutions, and the defects of the administration system is superficial and these might end up not giving an adequate answer. Even if the articles of the laws concerned changed to remedy the loopholes in the laws, in many cases, the problems would still remain.

In order to understand the initial occurrence of vacant land, this section examines two aspects of vacant land in Seoul: the stage of urban development and land development methods. The examinations will give a clearer picture of the occurrence of vacant land in Seoul.

#### **5.4.3.1 Urban Development Stage and Vacant Land**

Urban growth due to the concentration of population and industry usually demands more housing land, industrial premises, and public space. The seemingly easiest way of land supply through urban sprawl has negative effects, one of which is the problems of vacant land. One irony here is that while the city suffers the shortages of land for housing and industry, there is still a lot of vacant land, large and small, idling here and there. This section deals firstly with the stages of urban development and land vacancy. The thesis identifies four stages of urban growth in Seoul for the last 600 years:

1. No Growth (1394-1910): For more than 500 years, the area of Seoul was nearly fixed at 16.5 km<sup>2</sup> with the city centre enclosed into the city wall and 245 km<sup>2</sup> of surrounding area. During this period there had been no noticeable problem of land vacancy except for the extreme cases of wars with neighbouring countries.
2. Steady Growth (1910-1945): During this period there were three city administration boundary changes; the area of Seoul was once reduced to

36.2 km<sup>2</sup>, and in 1936 it was expanded to 136 km<sup>2</sup>. Relevant issues with land vacancy in this period are the problem of dug-out settlements squatting on riversides and mountain slopes (Kim 1989) and the vacant land left over after the Land Readjustment Projects implemented in the 1937-1945 period.

3. Gradual Growth (1945-1962): There was once a big expansion of urban administration area (the total urban area of Seoul reached 268 km<sup>2</sup>); there were concerns over the sites of vacant land used for refugee settlements after the Liberation in 1945 and the Korean War (1950-53).
4. Rapid Growth (1963- to the present day): Another big expansion of the city boundary in 1963 to 593.75 km<sup>2</sup> nearly shaped the present Seoul with an additional annexation of 11.45 km<sup>2</sup> in 1973. Most of the present vacant land in Seoul originated in this period. The acquisition of land by the authorities and private developers for future expansion or speculation created land vacancy, while the uncontrolled sprawl of urban development, of houses, lines of communication, new utilities rendered the intervening areas useless for farming or immediate development. The most common characteristic found in the period is that most of the vacant land is either abandoned agricultural land in fringe area awaiting urban development or a sort of SLOAP in the Land Readjustment Projects (see next section). An interesting thing in this period is that there is a noticeable amount of vacant land in the city centre of Seoul. The vacant land occurred as the so-called population inducing facilities were compulsorily relocated to the urban fringe area of Seoul, to the new towns near Seoul, and to other places in the Seoul Metropolitan Area.



The discussion above illustrates the way in which land development in Seoul over the last 600 years has created conditions leading to land vacancy today. This suggests that the consideration of economic and institutional factors as well as historical context is necessary for the explanation of the causes of vacant land. The economic and institutional factors will be discussed in the following section which deals with land development policy measures.

#### **5.4.3.2 Land Development Policy and Vacant Land**

Here is another aspect of the occurrence of vacant land, which may be one of the most fundamental causes of this phenomenon in Seoul. It can be said that land and housing policies of Korea have been nothing but land speculation control measures in which vacant land has always been one of the main policy concerns. But until now the issue of vacant land has been relatively ignored in planning research although land speculation sometimes presupposes the existence of vacant land. This section investigates the significance of land development policy measures as a cause of vacant land focusing on the unexpected results of the policy measures. This section argues that vacant land in Seoul is closely related to or even directly results from the land policy, and particularly related to the methods of land development. Before discussing land development policy, two other policies related to the issue of vacant land must be mentioned briefly: housing policy and Seoul Metropolitan Area population dispersal policy.

The aim of most of the early land development policy was to provide as many housing lots as possible in a short time with less financial investment. Generally speaking, housing demands tend to reduce the stock of vacant land. But sometimes a housing policy measure can temporarily contribute to the increase of vacant land. The housing policy for the preparation of the Seoul Summer Olympic is a case in point. The rehabilitation and beautification projects for the

preparation of the Olympic Games in 1988 led to a large demolition and redevelopment programme. The objectives of the projects were to provide land for all the new developments and to remove what the government considered slums or unsightly areas which could be seen from the main roads or Olympic facilities. During the spring and summer of 1988, many residents living in the so-called "unsightly areas" were evicted simply because the sites were next to the path along which the Olympic torch was to be carried (Environment and Urbanization 1989). It is quite natural that after the Games, many of the demolished sites remain vacant.

On the other hand, since the early 1970s, another type of vacant land has increased, particularly in and around the city centre of Seoul, due to the Seoul Metropolitan Area population dispersal policy. This type of vacant land is defined in the 1982 Seoul Metropolitan Reorganisation Planning Act as a "Transferred Site". Transferred sites are the sites left over after the relocation of public and private facilities which induce population concentration. Although the population dispersal policy originally included the relocation of manufacturing factories, government offices and schools (see Plates 5.13 and 5.14) in the city centre, in fact most of the relocated facilities were either schools or public institutions (Keel 1990). During the fieldwork for the pilot study in 1990, it was recognised that there were 49 relocated institutions in the city centre of Seoul: 25 middle to high schools, 9 primary schools and 15 universities and public institutions, whose total area reached 760,000 m<sup>2</sup>. Almost all of the transferred sites were purchased by private corporations and used temporarily at their will until finally developed. The transferred sites have common characteristics: most of them are large in area; most of them are public facilities; in most cases, they are historical sites located in the city centre which has been developed since 1394.



Plate 5.13 A "Transferred Site" in the City Centre. It is a Vacant Site Left Over After the Seoul High School Moved to a Southern Part of Seoul.



Plate 5.14 A "Transferred Site" in the City Centre. It is Used as a Temporary Parking Lot after the Jungdong Middle and High School Moved to a Southern Part of Seoul.

However, one of the main causes of vacant land can be found in land development policy. Most of the land policy measures implemented for the last 30 years have centred on the control of land speculation. The aims of the land policy were, thus, to promote land use and development preventing a disordered urban sprawl, and to redistribute the profits from speculation preventing the monopoly of landownership. The failure of all the land policy measures is partly ascribable to the lack of reliable administrative tools to secure its proper implementation and partly to its preoccupation with the property market economy.

The analysis of Korean land policy in this thesis starts from 1910, the beginning of the Japanese occupation of Korea. That only gives the most consistent picture of the land policy changes in Korea because the land use planning system under Japanese rule including zoning and Land Readjustment Projects (hereafter LRPs), for example, is not basically different from that of the period after 1945 except for some land speculation control measures. The review of LRPs can help explain the land development policy in general and the vacant land problem in particular in South Korea.

In South Korea, there are basically two types of land development methods: a public process and a private process. The public process can be further divided into two: Land Readjustment Project and Public Land Development. The implementation of Public Land Development is quite a recent one as an alternative to LRP. The difference between the two methods is, in short, that Public Land Development is possible only after public acquisition of land from the landowners whereas LRP does not affect landowners' property rights.

The LRP system works as follows: When raw land is considered to be suitable for development for urban uses, the area is designated as an LRP area by a

public body<sup>19</sup>. The raw land is subdivided and replotted for urban uses. Then the subdivided land is reallocated to the original landowners in proportion to their original holdings of raw land by the public body (in most cases, it is local government; see Note 19) who deducts a cost-equivalent portion of land to pay for the costs of the project. However, in most cases, financially poor local government sells off the reserve land in order to expedite the project (for more details of LRP see Hebbert and Nakai 1989 pp21-4). This method has been so popular because both the public bodies and landowners all gain from the development (see Chang 1988; for details of the evaluation of this method, see Chapter 8).

LRP was introduced into Korea through Japan during the Japanese rule of Korea between 1910 and 1945.<sup>20</sup> The first plan of LRP in Seoul appeared in 1928 but it was not implemented. The first LRP in Korea was implemented in Najin, now in North Korea, in accordance with the enactment of the Korean City Planning Order in 1934. The first project in Seoul was implemented in 1937 before spreading all over the country. Japanese colonial government proclaimed in 1936 the whole area of 135.35 km<sup>2</sup> of Seoul as an Urban Planning Area and 52.27 km<sup>2</sup> of Seoul as LRP districts. When the Japanese rule ended in 1945, most of the districts were unfinished leaving sites in a mess without facilities except for roads (Sohn 1991). These sites of vacant land were instantly colonised as squatter settlements between 1945 and 1949 by the refugees from the northern part of Korea and repatriates from abroad. This was the first major event to cause a massive amount of vacant urban land in modern Seoul.<sup>21</sup>

Vacant land in Seoul caused by the unfinished LRPs during the 1937-1945 period is, in a sense, a SLOAP. The occurrence and the subsequent illegal occupation of the vacant land were totally unexpected results of the land development policy. But most importantly, the structural problem lies in the

totalising ideology of the land development method. The reasons why it was used so extensively in the 1960s and 1970s and has continued to be used until recently<sup>22</sup> are simply that it is comprehensive, cost saving, and that large-scale control is possible.

The second biggest cause of the increase of vacant land in Seoul must be the massive implementation of LRPs in the period 1960-1975 during which 55% of all the developable land of present Seoul was developed by that method. Until 1991, 40% of the whole urbanised areas of Seoul have been developed by this land development method (see Note 22). LRPs, together with the urban expansion in 1963 and the initiation of the first Five Year Economic Development Plan in 1962, contributed to the subsequent land price increases and land speculation, and vacant land still remains on the project sites. The massive amount of vacant land in this period was another example of an unexpected consequence of the land development policy for a rapid and efficient urban development.

Subsequent land policy measures are all about the purpose of controlling the land speculation caused originally by LRPs. To sum up, the Korean land policy from the 1960s onwards was a process of the conflict between, on the one hand, the aftermath of both the massive urban expansion and LRPs, and, on the other, the prescription for the problem of land speculation caused by the former. The seeds of the land vacancy in modern Seoul were sown in the period of the 1960s and 1970s and further back in the 1937-45 period. Of course, there could be other possible causes of vacant land in Seoul and further in-depth research must be followed to examine the details of this argument. But from the point of view of land development policy, this explanation can help understand the occurrence of vacant land in Seoul.

In conclusion, Korean vacant land problem began with the large-scale urban land expansion of Seoul in 1963, which coincided with the launch of the first Five Year Economic Development Plan in 1962. In addition, Land Readjustment Projects whose origin can be found in the period of the Japanese rule before 1945 must be a major cause of vacant urban land. Whatever the other causes it might have, vacant land in Seoul has always been colonised, initially by urban squatters and recently by city farmers.

## 5.5 CITY FARMING IN SEOUL

It is quite strange to see people growing vegetables on vacant sites in highly urbanised areas of Seoul with no legal title, whilst nobody in the authorities raises the question of illegality. On the other hand, some city farming sites such as roadsides, dry river-beds and rubbish tips are so unsafe as to need regulations to prevent likely health hazards to those consuming the products. If there are a lot of city farmers who cultivate vacant land in Seoul, there should be an explanation of the phenomenon as a basis for a new policy development. City farming might not have been an appropriate research topic in the 1970s or earlier, but given the depth of ecological awareness worldwide with new light being shed on the need for urban nature conservation, there is growing interest in this issue in South Korea. As this thesis will reveal, however, city farming has not just an aspect of nature conservation but also socio-economic and political dimensions.

This section reviews, firstly, the historical context of city farming developed in Seoul. Then it considers some aspects of city farming as a form of squatting, examining the fact that city farming activities have been allowed with no legal basis for the use of vacant land. It does this through arguing the legal points of

urban squatting in terms of property rights and urban planning. After estimating the number of city farmers, this section discusses characteristics of city farmers in Seoul mainly in a social context. Finally, it shows a number of examples of city farming recently identified in Seoul.

### 5.5.1 History of City Farming in Seoul

It is interesting to look into the history of city farming in Seoul whose compact area and crowded population make it nearly impossible to imagine this kind of activity. But surely there has been city farming all the time. Farming landscape was a familiar scene of everyday life for the citizens of Seoul. Rural life and urban life had been well balanced within the boundary of Seoul throughout the Choseon dynasty. Broadly speaking, the area of Seoul in the Choseon dynasty with which this historical review mainly deals, includes the walled city and the settlements within 4 km radius outside the wall. Mild temperature, high rainfall and alluvial soils from the Han River and other streams made Seoul one of the best environments for cultivation.

Even in the very city centre, there were a number of vegetable growing sites attached to the government offices which controlled and supplied goods and vegetables to the royal court. One of the examples was Naenongpo which was a vegetable plot managed by eunuchs to grow vegetables consumed by the royal court. Particularly the site where the Air and Correspondence College is now located was once famous for its production of Seoul chinese cabbages (Lee 1989). There were a number of livestock farms in Seoul too. One of the sites was just outside the southern gate of the wall, now in Huam Dong. There was a livestock farm in which cows, oxen, pigs, and sheep were raised to be used as sacrifices for royal court ceremonies (ibid.). There were also a number of large-scale commercial vegetable plots cultivated by citizens such as chinese cabbage



fields under the Naksan and Yeonhee Dong, and radish fields around Toknypmoon.

Together with the large-scale city farming plots mentioned above, there were also smaller ones such as kitchen gardens in ordinary households. Stream banks and dry river-beds were also used as vegetable plots. Other famous sizeable vegetable plots in the city centre during the Choseon dynasty include dropwort fields in Euijoo Ro and Ulchi Ro 5 Ga, gromwell fields in Okin Dong, herbal fields between Manri Dong and Chungjeong Ro 3 Ga, and pumpkin fields around Hongeun Dong (ibid.).

From the point of view of land use control, it was prohibited to grow cereals in the city (within the wall). This was done in order to reserve building lots, to enhance the efficiency of land use, and to maintain a fine view. Furthermore, for the same reasons, it was not allowed to cultivate even on the private land lying beyond the mid-slope of the Mount Namsan even if it was outside the wall (Sohn 1977). But it was allowed to grow vegetables on vacant lots left over after building had taken place in the city. Ordinary people living inside the city wall were entitled by law to get about 280 m<sup>2</sup> of building lot for each household, in which they could have small vegetable gardens. The vegetable gardens were useful when nightsoil was disposed of on them if the farmers outside the wall could not come to collect the nightsoil in the busy farming season and helpful as a fire buffer zone between neighbouring households (Meier & Yang 1982).

Even if there are few references to the history of city farming in this century in Seoul, there is no doubt that this phenomenon has never been discontinued because vacant land, large and small, has always been there in Seoul and it is such plots of vacant land that ordinary citizens turn to colonise.

### 5.5.2 City Farming as a Form of Squatting

City farming on vacant land in Seoul is being done by the people who have no legal title to occupy and cultivate the land. The city farmers can be said to be a new type of urban squatter for the reason that they are by no means poor and that most of them regard farming on vacant land as a kind of recreation or a leisure activity. Therefore city farmers cultivating vacant land in Seoul seem to be different from the squatters easily seen in the big cities of Third World countries.<sup>23</sup> Furthermore, while most urban squatters in Third World countries usually originated from economically depressed rural areas, this is not the case for the city farmers in Seoul at present. The only common factor shared by both urban squatters of other Third World countries and city farmers of Seoul is that they are all illegal occupants of vacant urban land.

It is a basic principle of law that nobody has any business to enter or remain in/on buildings or land - still less to do anything to them - unless he or she has either a right or a permission to do so. In spite of the popular phrase "trespassers will be prosecuted", trespass is not, except in special cases, a criminal offence in itself. But in relation to squatting there are two criminal offences - forcible entry and forcible detainer. Anyone, even an owner, can commit them (Davies 1975). It must be noted that although a squatter is always, by definition, a law-breaker, morality may be partly on his/her side. Squatting dates back as long as the process of land settlement itself, and most cultures have a traditional belief in "squatter's rights" whether these are recognised by law or not (Hardy et al. 1984).

According to the Collins Cobuild English Language Dictionary (1987), a squatter is defined as "a person who lives in an unused building without having a legal right to do so and without paying any rent or a person who occupies

unused land, either to farm it or to build a house on it, without having a legal right to do so". However, there is even a concept of "lawful squatters" who are permitted to live in empty premises, especially short-life housing, by local authority. Therefore, despite popular opinion, the term "squatter" does not suggest any criminal tendency.

In Korean law, no squatter obtains a title until he or she has retained the possession against the assumed owner of the property for twenty years or for ten years if he or she registers at the start of the possession. What it amounts to is an attempt by people with marginal incomes to secure a small plot of marginal land. Squatting becomes, as it did at various times in the past, a product of the "marginality" of the process (Hardy et al. 1984).

Another point raised here is whether city farming is contrary to the Urban Planning Act and the National Land Use and Management Act, two of the basic land use laws in South Korea, and other relevant acts. Under Korean zoning, there are no specific regulations for land use action except for the scales, structures, and other conditions of individual buildings in a zoning area. Moreover, city farmers do not need to apply for planning permission to cultivate vacant land. In the Article 4 of the 1991 Urban Planning Act, there is a stipulation that for certain minor and routine types of development, planning permission is not required. Furthermore according to the Article 5 of the 1991 Urban Planning Enforcement Ordinance, no planning permission is required for cultivation and planting trees on a plot of land which has no development project that will be implemented within the same year. So under the present Urban Planning Act, farming is possible in residential zones, commercial zones and any zones because there are no specific provisions about prohibiting that activity in the zones. However, in relation to city farming, if some animal and plant related facilities such as barns and sheds are built in certain zones, this

can be in contravention of the 1991 Building Act which does not allow these facilities in general residential zones, general commercial zones and other zones.

There is another act called the National Land Use and Management Act (enacted in 1972 and revised nearly every year) which stipulates "idle land" as part of its section. This act has provisions related to city farming on vacant land, and one of which states that "a site can be classified as idle land if the intensity of land use of the site is recognised to be well below the intensity of usual land use neighbouring the site". Considering this stipulation, the intensity of land use as agriculture in urbanised areas seems to be well below that of such land uses as housing, office buildings and other commercial uses. If a lot is classified as idle land, the owner then must submit a plan of using, developing or selling the land, otherwise it will be bought by the government through compulsory purchase. If it could not be developed properly after all, due to other complex planning problems, this land can still be used as a site for cultivation. In conclusion, under the present land use planning laws, city farming does not seem to be illegal. If it is not illegal to cultivate vacant land from the point of view of urban planning and it is better to cultivate vacant sites than to leave the sites idle, then a way of encouraging this activity can be promoted.

### 5.5.3 The Scale of City Farming

In 1988, there were 4,450 farm households cultivating 3,107 hectares of agricultural land in Seoul. It means there were at least 4,450 commercial farmers in Seoul. There might be hundreds of thousands of backyard farmers in Seoul. But it is very difficult to estimate the number of city farmers in Seoul not only because no official statistics on the scale of city farming in Seoul have been published yet but also because even the existence of city farmers has not yet

been recognised publicly. Nevertheless a rough estimation can be made by using the pilot and case study results to show a general picture of the scale of city farming in Seoul.

At the first stage, an estimation of unit area per city farmer can be made (see Table 5.2). As far as the pilot and case study results are concerned, the size of cultivated area per city farmer varies from a case of 5,000 m<sup>2</sup> in the Sinchon Dong site to a case of 10 m<sup>2</sup> in Sangkye Dong case study site. As shown in Section 5.5.5 of this chapter (see page 167), a city farmer in a fringe area of Seoul cultivates a vacant site of as large as 10,000 m<sup>2</sup>. However, as the next chapter will show, the size of plot cultivated by each interviewee in the case study sites seems to be relatively small: the five interviewees in the Mok Dong case site have plots of 100 m<sup>2</sup>, 100 m<sup>2</sup>, 180 m<sup>2</sup>, 20 m<sup>2</sup> and 100 m<sup>2</sup> each; Banpo Dong case site city farmers occupy 300 m<sup>2</sup>, 150 m<sup>2</sup>, 500 m<sup>2</sup>, 600 m<sup>2</sup> and 100 m<sup>2</sup> respectively; Sangkye Dong case site city farmers have 80 m<sup>2</sup>, 30 m<sup>2</sup>, 70 m<sup>2</sup>, 10 m<sup>2</sup> and 15 m<sup>2</sup> each. Since there seems to be no other method, under the limit of the number of cases, in order to calculate the average of the unit area per person, here the simple arithmetic mean will be used. So 552 m<sup>2</sup> can be distributed to each city farmer.

At the second stage, some assumptions can be made about the vacant land which is now being cultivated by city farmers. If all the vacant land in Seoul - about 30.3 km<sup>2</sup> - were assumed to be now cultivated, it could be estimated that there are about 55,000 city farmers in Seoul. But, if the uncultivable vacant land is taken into account, and 50% of it is assumed to be so, about 27,500 city farmers are estimated to be in Seoul. That might not be an overestimation considering the city farmers on dry river-beds, roadsides, street corners and other small-scale vacant lots. Admitting the limitations of this estimation, the author suggests that a systematic and statistically valid survey should be

followed to estimate the exact number of city farmers as well as the accurate amount of vacant land in Seoul.

**Table 5.2 Calculation of Unit Area Per City Farmer**

Sites	Arable Area (a) (m <sup>2</sup> )	No. of Farmers (b) (person)	a/b (m <sup>2</sup> /person)
Mok Dong	17,000	50	340
Banpo Dong	9,971	50	199
Sangkye Dong A	1,280	20	64
Sinchon Dong	8,482	10	848
Yeoksam Dong	13,157	12	1,096
Sangkye Dong B	10,578	50	212
<b>Average</b>			<b>552</b>

**Note:** The first three sites are the case study sites and the rest are the pilot study sites. The arable area of Mok Dong case site is different from the total site area of 33,100 m<sup>2</sup> since it has been revised considering the uncultivable lots of a temple, a police station and a Dong Office, and the recently sold 5 building lots of total 5,523.2 m<sup>2</sup> and the flower seed-beds at the edge of this site.

Now that the general situation of city farming in Seoul is understood, the characteristics of city farmers in social and other contexts need to be discussed in detail to see what is going on with them in reality.

#### 5.5.4 Characteristics of City Farming

A major obstacle to growing food crops safely in urban areas is the health threat from air, soil, or water contamination (Elkin et al. 1991). Particularly farming sites such as roadsides and dry river-beds are not safe (see Plates 5.15 and 5.16). Areas exposed to industrial emissions or air pollution from heavy traffic are generally inappropriate for growing food. Vegetables grown in cities are quite vulnerable to air pollution: sulphur dioxide, for example, is toxic to them (see

Goudie 1986). Although a further scientific investigation into the ecological aspects of city farming is necessary and important in itself, there is not enough space in the thesis to discuss it because the main concern here is with the social aspects of city farming.

If there is unused public land whose ownership is uncertain or commercial value is very low, city farming usually has a better chance of developing. Here and there sites of vacant land are protected by a notice declaring that the land is private or is not allowed for farming (see Plates 5.17 and 5.18), but often unused plots are left unattended or taken over for the neighbourhood's kitchen gardens (see Plates 5.19 and 5.20). People attracted by the idea of a place out of town, and who lack the economic means to follow the conventional route of paying market prices and dealing with professional traders in land, will look for cheaper alternatives. These will inevitably be found in areas neglected because they flood, or have long been in disputed ownership. It is to such plots of opportunity that common people have turned (see Plates 5.21 to 5.24).

The attitudes of local authorities and citizens who happen to see city farming seem to range from extreme hostility through various degrees of tolerance to hearty support. But what matters here is the attitudes of city farmers themselves. A city farmer who cultivates one hectare of vacant land in a fringe area of Seoul was once interviewed by a newspaper (Saturday newspaper 15.8.1990). When he was asked by a reporter why he grew crops there, his answer was that firstly to leave vacant land idle was regrettable to him, and secondly it was good for his health. These may be the common reasons for practising city farming.

Whatever the reasons for city farming, whether for leisure or for a supplement to low income, it gives city farmers an opportunity to work, to produce, making



Plate 5.15 An Unsafe City Farming Site on a Dry River Bed:  
Two City Farmers Water a Vegetable Plot with  
Untreated Water.

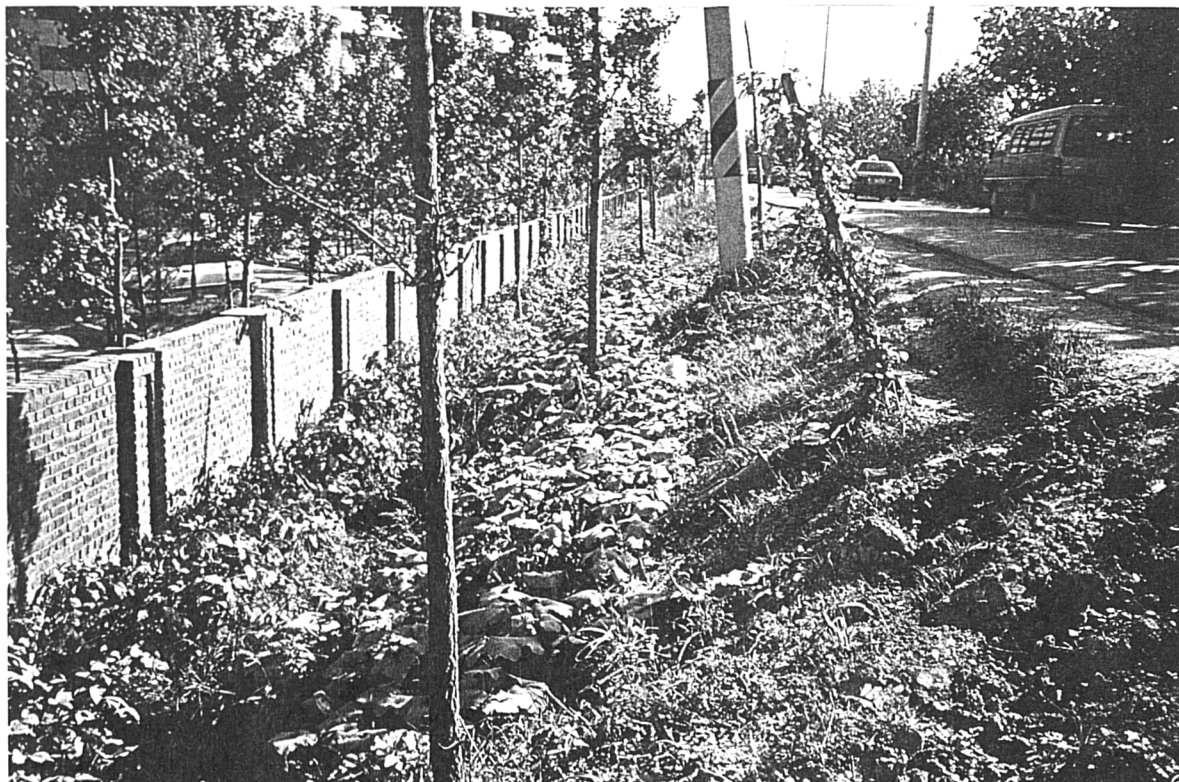


Plate 5.16 An Unsafe City Farming Site at a Roadside:  
Pumpkin and Bean Leaves are Covered with Dust  
Thrown up by Passing Cars.





Plate 5.17 A Notice Board Warning not to Grow Vegetables on the Vacant Land Which is Reserved for a School Building.



Plate 5.18 A Notice Board Warning not to Grow Vegetables on the Dry River Bed.



Plate 5.19 A Kitchen Garden in a Residential Area of Bangyi Dong. This Plot is a Vacant Building Lot.



Plate 5.20 A Kitchen Garden Inside of a Housing Lot in Seocho Dong.



Plate 5.21 A City Farming Site in a Residential Area of Banpo Dong.



Plate 5.22 A City Farming Site on a Lot Left Over After Apartment Blocks Construction in Myoungil Dong.





Plate 5.23 A Vegetable and Flower Garden Arranged by a Nursery School for an Educational Purpose in Sangkye Dong.



Plate 5.24 A City Farming Site on Vacant Land in Dogok Dong.

life in the city meaningful and, in a sense, contributing to their household economy. Hardy et al. (1984) give a philosophical statement about the cause of squatting saying that:

what was it that drove people, time and again, to claim a few acres of land as their right?... what stands out is a sense of seeing justice done - of getting back that to which everyone has a right; and a belief that owning one's plot of land would secure independence and freedom.

The results of the pilot interviews held in October 1990 show a general picture of the characteristics of city farming in Seoul (the main case study results will be presented in the next two chapters). The pilot study sites were already presented in Table 2.1 and Map 2.1 in Chapter 2. The six pilot study sites (Sangkye Dong A and B, Banpo Dong, Mok Dong, Sinchon Dong and Yeoksam Dong) were visited by the author and some interviews were held. The questions were under three categories: cultivation, personal questions and land. Although it cannot be generalised, some of the common things found all across the pilot study sites are presented as follows:

**Cultivation:** the plot size per city farmer was relatively small although a city farmer on the Sinchon Dong site occupied a plot as large as 6,000 m<sup>2</sup>; most of the city farmers cultivated more than 5 different crops; reasons for their engagement in city farming were mostly leisure and health although there were some cases of selling their produce for economic reasons; the harvested vegetables were consumed at home or distributed to the neighbours, friends and relatives; farming sites were mostly within walking distance of their homes offering an easy escape from the bustling city life.

**Personal Questions:** city farming was enjoyed by males as well as females; most of them were middle to older aged; education levels were generally low, but that should not be interpreted that city farming is mean work; city

farmers' religious backgrounds were diverse; their places of birth were also various; there was not much communication with other city farmers on the same sites; city farmers' own families showed negative attitudes towards city farming.

Land: the pilot study sites included both private and public land; most of the sites were reserved for certain developments, but delayed; in one way or another, on each site, there were some disputes over certain land uses. The present land uses around the city farming sites were mostly either housing or offices; in most cases, there were no officially confirmed development plans.

The pilot interview results cannot be generalised. There must be other poor city farmers who grow vegetables as a livelihood and there must be much younger city farmers in Seoul. More detailed and theory based interview results of the case studies will be presented in the next two chapters. In any case, city farming is not illegal, and in a sense city farmers are a better manager of the neglected and degraded urban land than the local authorities concerned.

While a number of city farming sites are disappearing under the pressure of urban development (see Plates 5.25 to 5.28), new city farming sites are instead being created in a variety of ways. The next section briefly describes some examples of these city farming sites.

### 5.5.5 Examples of City Farming in Seoul

This section introduces recent issues about city farming practices in Seoul including its metropolitan area. Most of the information comes from mass media such as newspapers, magazines, and television programme. Of all the



Plate 5.25 City Farming Sites Under Threat of Development:  
A City Farming Site in Sangkye Dong in 1990.



Plate 5.26 The Same Site to Plate 5.25 in 1992. The Ku  
Government Finally Permitted the Landowner to  
Construct a Bus Terminal Despite Community  
Protest.





Plate 5.27 City Farming Sites Under Threat of Development:  
A City Farming Site in Sincheon Dong in 1990.



Plate 5.28 The Same Site to Plate 5.27 in 1992. The  
Landowners Decided to Build a Building.



national newspapers and relevant magazines reviewed by the author, the next examples have been collected. The examples can be summed up as follows:

**Example 1:** City farming on a polluted dry river-bed (Choseon-Ilbo newspaper, 24.7.1990).

Jungrang Cheon, Sungnae Cheon, and Tan Cheon, which are the tributaries of the Han River in Seoul, have severely been polluted by waste water and industrial effluents. These polluted streams have contributed to the deterioration of the quality of drinking water for the citizens of Seoul. All over the riversides and the dry riverbeds of the polluted streams, it is easy to see a variety of vegetables grown throughout the year on partitioned plots whose area ranges from the smallest of 330 m<sup>2</sup> to the largest of 1650 m<sup>2</sup>. The problem here is not just that the soil on which vegetables are grown is polluted, but that those possibly polluted vegetables are sold in the markets. Therefore it is imperative to restrict the cultivation of vegetables on such polluted sites and to introduce certain regulations to control the activity on other sites.

**Example 2:** City farming in a fringe area of Seoul (Saturday newspaper 15.8.1990).

This is a case of city farming in the southern fringe of Seoul where plenty of vacant land is still lying idle for anyone to cultivate free of charge. The land has been left vacant for many years after the original farmers who owned the land sold the land to speculators who continue to wait for an appropriate time to develop the land. A farmer called Chang-Nam Lee (58) cultivates one hectare of vegetable field and pays no rent. He grows such vegetables as pumpkins, green perillas, and red peppers. The reasons for why he cultivates this vacant land are: firstly, to leave the fertile land dormant is regrettable; secondly, farming

activity keeps him fit and well; and thirdly, as an unemployed man, he earns some money by selling the harvested vegetables in the market. The problems he has are: firstly, lack of labourers who can help him; secondly, no possibility of using farm machinery due to the narrow farm roads around his field. He practises a vinyl mulching method when seeding and sprays chemicals to suppress weeds.

**Example 3:** Let's promote farmers in Seoul (Jungang-Ilbo newspaper 23.5.1992)

In 1991, agricultural land in Seoul amounted to 2,574 ha, which was about a half of the area of agricultural land in the early 1980s. Accordingly the number of commercial farmers had also declined from 34,000 in the early 1980s to 15,000 in 1991, which comprised only 0.2 % of Seoul citizens. Moreover, 80% of the commercial farmers in Seoul are leasehold farmers who could be forced to stop farming when the agricultural land is required for urban development. An officer of the Seoul government relates that it is a prerequisite to prepare a fund for promoting young farmers in order to prevent the decline of the area of agricultural land, and to *develop fringe farming which can supply fresh* vegetables and fruit to the citizens.

**Example 4:** The first harvest of the barley grown on the Han Riverside Parks (Choseon-Ilbo newspaper 9.6.1992).

Three machine harvesters are busy throwing up bundles of barley and so are 10 workers collecting the sheaves on a field in the Ichon Riverside Park under the bridge of the Han River in Seobuichon Dong, Yongsan Ku, Seoul. The Han Riverside Park Management Office worked out a good idea of using the weedy parts of some open spaces in the park, which used to be flooded 4 or 5 times in

the summer, for a natural learning place and a field. Barley was chosen as one of the best crops for the programme because it can be easily managed and is resistant to cold weather. 5 out of 9 Han Riverside Parks now have their own barley fields with a total area of 76,000 m<sup>2</sup>. 100 bags of barley will be sent, in charity, to the homes for the elderly and some orphanages. An officer in charge of the programme has a plan to try another crops such as wheat and oats on the new fields which will be developed next year. He boasts that his parks are not just a resting place but are also an example of efficient land use where no vacant land lies idle (see Plate 5.29).

**Example 5:** Two faces of the Han River (Jungang-Ilbo newspaper 19.6.1992).

The Han Riverside Parks have become a wonderful leisure space for the citizens of Seoul. Beautiful flower beds, footpaths, and a look-out shed made of rice straw in this Zamwon District Riverside Park produce a taste of Arcadia. Furthermore a vegetable garden, where lettuces, cucumbers and other vegetables are grown, is also used as a nature learning centre (see Plate 5.30). But dead fish adrift along the riverside and rubbish strewn around the park have become an eyesore to the visitors to the park.

**Example 6:** Patients in a hospital enjoy growing vegetables on the premises (Kyunghyang-Shinmun newspaper 21.6.1992).

A vegetable garden made on the vacant space in the premises of Kyunghee General Hospital in Seoul gives a fresh hope of recovery for the hospitalised patients. The vegetable plot, which was originally a flower bed, was arranged by the hospital to give a leisure opportunity for the long-term elderly in-patients. At present more than 10 different vegetables such as red peppers, eggplants, pumpkins, taros are growing. A nursing husband of a half-paralysed



Plate 5.29 A Barley Field on a Riverside Park in Yeoido Dong. Seoul City Government Initiated This Project.

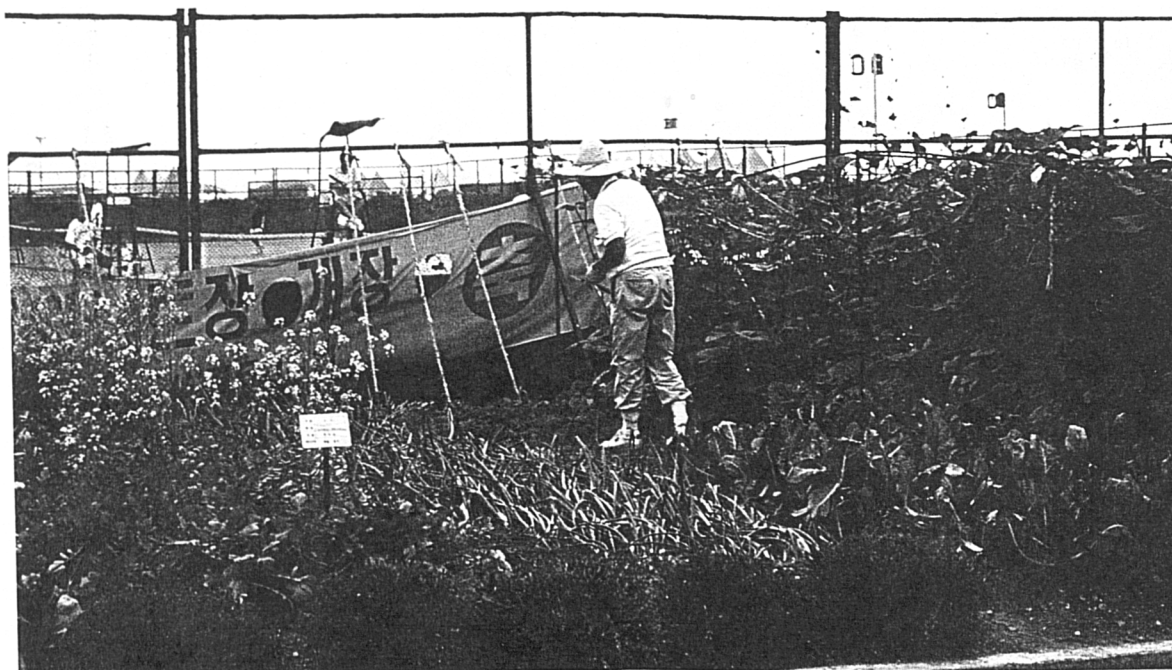


Plate 5.30 A Vegetable Garden Beside a Tennis Court on a Riverside Park in Zamwon Dong. Seoul City Government is in Charge of This Project.

woman says that his wife smiles, who rarely does in bed, whenever she comes out to the plot and that to see the vegetables growing on the plot makes him comfortable and alleviates the burdens of nursing. Hospital staff in charge of the scheme started the programme unconvincingly. But now, favoured by so many patients, the temporary vegetable garden will be promoted to be a formal vegetable garden to give more opportunity for both patients and their families who will enjoy participating in the "life growing" work.

**Example 7:** "Blue Leaf Club"<sup>24</sup> formed by a group of housewives in Kangnam Ku (Donga-Ilbo newspaper 9.7.1992).

The Agricultural Extension Office in Seoul left the management of a greenhouse in Saegok Dong, Kangnam Ku in the hands of housewives who have a rare chance of coming into contact with the soil. The 60 strong housewives, mostly living in apartment houses all over Seoul, formed a club called "Blue Leaf". They come out in a group of around 10 members to grow vegetables every weekday except Saturdays. This kitchen garden consists of a greenhouse of 330 m<sup>2</sup> and a plot of 990 m<sup>2</sup>, in which each housewife was allotted with a space of 2 by 1 meter of the greenhouse plot to grow their own vegetables such as lettuces and crown daisies. In addition to the greenhouse, they grow such vegetables as tomatoes, eggplants, red peppers, green perillas, and sweet potatoes on the adjacent vacant land. According to the Agricultural Extension Office in Seoul, the programme was initiated to remind the housewives living in Seoul of the value of labour and the pleasure of harvest by reviving the traditional kitchen garden. The life-style of the members who once lived in luxury has changed since they participated in the programme. They now live a simple life wearing working clothes and sports shoes. The head of the office has another plan to open three more kitchen gardens around Seoul because the programme has proved so popular.

**Example 8:** Vacant agricultural land as a free weekend farm (Choseon-Ilbo newspaper 1.7.1992)

Parts of vacant agricultural land in Kyungki Province (a Province in the Seoul Metropolitan Area), which has about 5.6 million m<sup>2</sup> of vacant land, are now being used as weekend farms for the families who have plans to distribute the harvested crops to the poor. On a Saturday morning in June 1992, a group of local government officers and their families living in Yangju Kun, Kyungki Province worked hard to weed out a red pepper field which once lay idle. Yangju Kun local authority persuaded military units, social organisations, and other institutions in its jurisdiction to cultivate the sites of idle land of 67.7 hectares. Even the local authority itself cultivates 8.3 hectares of idle land which is divided into around 3,300 m<sup>2</sup> each to be occupied by 26 departments and other offices under its control. The local government officers together with their families now grow rice, beans, green perillas, red peppers, pumpkins, and buckwheat every Saturday and Sunday. 5 hectares were allocated to seven military units around Yangju Kun to be cultivated by the servicemen in their spare time. As a result, the military units have benefited from getting abundant supplies of fresh vegetables in addition to their officially supplied side dishes. The members of the Seniors' Association in Eunyon Myon Hapae 1 Ri have also acquired a plot of 6,600 m<sup>2</sup> where they grow lettuces, red peppers, and cucumbers both for leisure and for subsistence. Other participants involved in the programme are: 145 persons from the Government Sponsored Young Farmers (30 hectares allocated), 5 Mechanised Farming Units (3.6 hectares), 57 ordinary rural farmers (18.5 hectares), police stations, and the Saemaul Leaders' Association, the Saemaul Women's Association, the Agricultural Cooperative, and the Voluntary Fire Brigade.

The local authority began to prepare a plan of using vacant agricultural land in March 1991 when they realised there was a lot of ignored but fertile agricultural land here and there particularly along the roads either because of speculation since the middle of 1980s or because of the lack of agricultural labourers. According to a survey conducted by Yangju Kun about the reasons for the land vacancy, 52% of vacant agricultural land is the result of the lack of labourers, 17.5% is owned by absentee landowners, and 14.9% is there as a result of the abandonment of farming. So the Kun government proposed some organisations interested in the plan to submit applications to cultivate the idle land. For this programme, the Kun government invested 5 million won (about 4,000 pounds) to provide rice seedbeds and seeds while allowing the harvested crops to be used at the cultivators' will. The head of the local government says that this programme helps not only use vacant land efficiently but also reduce land speculation, adding that after the introduction of the programme, the mood of the office has changed to be more lively than ever before.

This section has reviewed recent examples of city farming in Seoul. It vividly shows that the activity attracts a large number of the citizens of Seoul. To conclude, although there is growing interest in city farming in its various forms, in South Korea in general and in Seoul in particular, there have been no considerations why city farming is a worthwhile practice and even why this kind of event is now happening. The hypotheses suggested in the thesis concern these questions. In search of the causal mechanism of city farming, the thesis introduces a social learning model in the next section.

## 5.6 MODEL FORMULATION

A city farming site can be understood as a socially produced space, where social relations can be identified. South Korean urban planners have looked upon the land of Seoul as a purely physical space, making no consideration for whom they plan. But the space they deal with is actually a socially produced one in which social relations are identified. That is one of the reasons why the thesis employs a social learning model rather than other seemingly more intimate ones such as policy analysis model and other theories.

In this section, the reason why a social learning model is adopted to explain the causal mechanism of city farming is justified before the concept of social learning is briefly reviewed. Then the features of this model will be explained in terms of actor, reality learning, and practice learning. Finally, the most appropriate form of imagined model is proposed.

### 5.6.1 Justification of Using Social Learning Model

Some may argue that social learning theory is an exhausted subject which is no longer a powerful tool in explaining social activity. Others may argue that it is not good to employ a somewhat old-fashioned theory at a time when there are a lot of fine new ones available for understanding social action. But the author argues that in the South Korean context, different from other countries in terms of political ideology and cultural background, this model is one of the best to explain why city farming happened.

Amsden (1989 p4) writes that "if industrialization first occurred in England on the basis of invention, and if it occurred in Germany and the United States on the basis of innovation, then it occurs now among backward countries on the basis of learning". Of course the term "learning" in this case is not the same as



that of the theoretical model developed in the thesis. It is just a metaphor. However, it aids the imagination needed for the understanding of city farming in Seoul: the present city farming in Seoul is not a total invention at all, but has its own long history as discussed earlier in this chapter. Furthermore, it is nothing like innovation, but rather a continuation of traditional practice under different socio-economic conditions. It must be a way of learning, both in practice and in reality, under some circumstances. Considering that a variety of forms of city farming worldwide has been developed as a social movement and that city farming in Seoul is gaining momentum amidst growing environmental concerns, this author argues that this approach is justifiable in the context of Seoul, South Korea.

The social learning model employed here is not about a procedural theory of planning. Neither is the case that the social learning model is a strategy to achieve geographical decentralisation based on territorial approach (Friedmann and Weaver 1979; for a critical discussion, see Hebbert 1982). The purpose of adopting a social learning model here is sociological rather than geographical. The key point in the model is that if one of the objectives of a social activity is to solve problems, social learning can be a mechanism on which actions can be based. In short, the social learning model produced here is not about planning theory but about causal mechanism for a social activity.

A social learning model emphasises the advancement of basic knowledge while solving practical problems. In natural science, for example, Louis Pasteur discovered much about the role of germs in illness while trying to solve problems of fermentation for French vintners (Argyris, Putnam and Smith 1985). Likewise, city farmers in Seoul are now realising their role as a manager of informal open space and further as a vanguard of urban nature conservation while trying to solve their own problems of loneliness and spare time which

most of the elderly face. Their motives are rather egocentric but with some unexpected beneficial consequences (see Chapter 6).

Friedmann (1987) criticises social learning process, arguing that a problem goes away not because it has been solved, but because another problem has displaced it. But in the case of city farming on vacant land in Seoul, although the land vacancy problems can not be solved by city farming practice alone, it can, at least, help solve the problem of the unsightly landscape in a community and more significantly some social problems caused by the elderly. As far as social problems are concerned, no single action or programme can solve that once and for all. However, Friedmann (1987) finds out the possibility of positive development of the model in the public domain. He even points out that European countries have growing interest in small-area, self-reliant development that will inevitably rely on social learning (*ibid.* p222). Social learning approach is particularly suitable in the public domain, where community self-help and local self-reliance are the cases because these forms of action need an intensive process of social learning (Friedmann 1987; 1992).<sup>25</sup>

### 5.6.2 Brief Outline of Social Learning Theory

The root of social learning theory can be found in Dewey's pragmatism and educational philosophy. It then developed to be theories for business administration and organisation development (Friedmann 1987). The essence of pragmatism lies in the Dewey's proposition that "knowledge is validated only when it helps an actor to dispose or settle a problem" (Dewey 1980 p229; see Friedmann 1987). Following Goldstein (1981 pp236-40), this section sums up the social learning approach as follows:

- 1) Learning, in its fundamental sense, is a change in behaviour resulting from experience.

- 2) Social learning is a higher form of learning occurring in a social context for the purpose of personal and social adaptation.
- 3) Social learning is a goal-directed experience.
- 4) Social learning is a value experience.
- 5) Social learning that affects adaptive patterns can result in periods of personal or interpersonal disruption.
- 6) Social learning typically involves transactional processes.
- 7) Social learning involves the interplay of cognition, emotion, and behaviour.
- 8) Social learning can be a group as well as an individual experience.
- 9) Under certain conditions, learning may evolve into a creative experience.

In short, social learning can be described as a process that involves actors mastering something for some purpose within a particular situation. In mastering something, actors need both practice learning and reality learning which are mutually interacting.

As Argyris et al. (1985) note, learning depends on practice, but the learner cannot practice what he/she does not yet know. The intent is to develop competence, but initially the learner faces repeated failure. Anyway a social learning model presupposes two basic concept: change and problem solving (Goldstein 1981; Argyris et al. 1985).

Here the difficult thing is that there seems to be no consensus about the meaning of some categories in this model such as action and learning. It is when the term "learning" is used to denote a particular human experience and activity that it is difficult to specify what it means. For a concept to have any meaning it must be qualified by certain conditional and situational forms of information. In sum, it is necessary to know who is learning what, where it is

taking place, under what conditions, in relation to who or what else, and for what purposes (Goldstein 1981).

### **5.6.3 Actor**

In social learning theory, an actor can be either an individual, or a group, or a community (Friedmann 1987). Although Friedmann (1987) argues that the principal focus of the social learning approach is the task-oriented action group, the thesis regards an individual city farmer as an actor. It was revealed in the pilot study that there were no formal or informal action groups in any city farming site although most of the city farmers considered they were members of their community. However, most of the city farmers seem to have an intimate friendship with other city farmers on the same site. The city farmers as actors are in fact themselves learners too. So what they learn and how they learn are as important as who they are.

### **5.6.4 Learning**

Learning is essential to human adaptation and development. The principal focus of the social learning approach is on action although the meaning is not clear-cut (Friedmann 1987). Then the crucial question is what learning is. Since learning stands for so broad range of activities, it seems to be almost universal in scope. Goldstein (1981) notes that social learning is initiated when a person's movement towards a valued goal is blocked by a perceived obstacle that will not yield to familiar and tested methods of resolution. Goldstein (1981) sums up that learning is tied to the basic human purpose of more conscious and competent mastering of the problems of living.

In terms of the different functions that learning serves, Goldstein (1981) categorises learning into three: strategic, tactical, and adaptive. But if a social

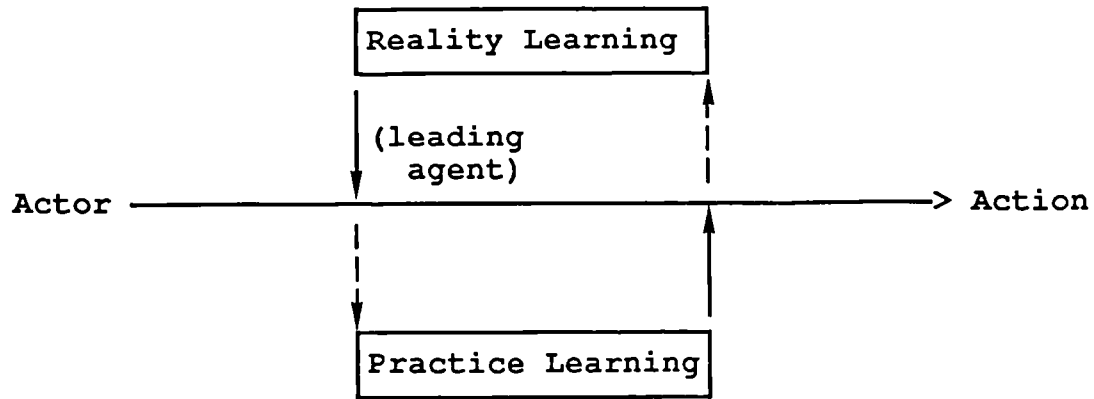
action is regarded as a problem solving process (Harre 1979), then learning can be classified into two: practice learning and reality learning. Practice learning is an actor's experiential aspects of learning. It includes the acquirement of skills, trials and errors, and the changes of action. On the other hand, reality learning is the actor's cognitive aspects of learning. It involves motivation, reasons, intention and the recognition of social and physical situations. These two learning processes are dynamic and have continuous mutual interactions. Through the repetition of reality and practice learning, the actor finally arrives at the most suitable form of action. The central assumption of the social learning approach is that all effective learning comes from the experience of changing reality (Friedmann 1987).

#### 5.6.5 Social Learning Mechanism

According to this model, the action as a purposeful activity undertaken by an actor is city farming. The actor is a city farmer on vacant land in Seoul. The actor is at the same time the learner. The change agent is not planner in this case, but the leading agent who initiated city farming on vacant land. The principal mode of learning is the mutual learning process, but sometimes it is tacit or informal. That is, the rest of city farmers follow the initiative of a leading agent by learning that to engage in city farming is possible and enjoyable.

As Sayer (1992 pp13-4) says, "knowledge is primarily gained through activity both in attempting to change our environment and through interaction with other people, using shared resources". Individuals cannot develop knowledge independently of a society in which they learn to think and act. City farming is a social phenomenon. The city farming activity is produced by agents in social context. The activity understood as a non-social phenomenon is meaningless. Although one could say that non-social objects are socially defined, they are not

socially produced. Based on this model (see Figure 5.1), the causal mechanism of city farming will be examined by the case studies.



**Figure 5.1 Mechanism of Social Learning Process**

This thesis does not insist that city farming is the best way of using vacant land, and neither is the case that the present form of city farming in Seoul has been innovated from the original form of agriculture in the urban areas of Seoul. What the thesis emphasises is that whatever benefits city farming has, the causal mechanism of city farming can be found in the social learning process under certain social and economic conditions. Therefore the logic of the explanation of the causal mechanism of city farming based on the social learning model is;

- 1) to describe the initial conditions: site history, and land vacancy,
- 2) to analyse the actor including the leading agents,
- 2) to analyse the reality learning process,
- 3) to analyse the practice learning process, and
- 4) finally to suggest the structure and causal mechanism of city farming.

## 5.7 CONCLUSION

City farming is a universal phenomenon, a natural way of urban life that stretches across cultures. However, the existence of city farmers as an urban squatter has been rarely recognised, at least in Seoul, South Korea. But the number of city farmers in Seoul at present is considerable. City farmers may not be a great concern for the city government. There seem to be quite different views on the nature of city farming from hostility through ignorance to support. City farming would die out together with the decrease of vacant land. But the amount of vacant land at present will still remain unchanged in the foreseeable future, and the eagerness shown by the city farmers in Seoul to cultivate a small plot of unused land can not simply be ignored.

The city government as well as Ku local authorities in Seoul will have to accept the existence of city farming as a way of life. City farming needs to be accepted as a solution to the vacant land problems. Under the present land use planning laws, no planning permission is required to cultivate a vacant site. Further, there is no specific regulation to prohibit city farming in a particular area. So from this point of view, city farming is not an illegal act but a social problem or a social phenomenon because city farmers do not do any harm to the land concerned or to the neighbours. City farming can not be left illegal or informal. Illegality must be redressed and unsightliness of vacant land must be improved. To prevent the wasting of precious urban land and to remedy the faults of the land use planning system, city farming on vacant land should be encouraged.

This chapter developed a social learning model on which the case study analysis would be based in the search for a causal mechanism. The model identified actors as learners who are problem solvers too. They develop their

action, for example, city farming in this thesis, through the reality and practice learning process where a mutual interaction is continuously happening. The problem of vacant urban land and the problem of the elderly could be solved by unexpected consequences of the city farmers' selfish action. The next chapter will apply this model to the three selected case study sites to examine the causal mechanism of city farming.



## Notes

- 1 In addition, the residents had their own orchards and vineyards in the suburbs, and they would keep cows and sheep in the commons or get some of their wood supply from the town forest. See Mumford (1961).
- 2 Strictly speaking, there is no that kind of farmer in Seoul. But very recently the Agricultural Extension Office of Seoul permitted a group of women to cultivate a site of vacant land of its own. That could be said to be similar to this category and there is a possibility that this type of cultivation can grow in number in the near future. See, for example, the case of barley fields in the Han Riverside Parks cultivated by the Seoul government itself (Choseon-Ilbo newspaper 9.6.92), the case of free weekend farms by the initiative of Yangju Kun (Choseon-Ilbo newspaper 1.7.92), and the case of 60 strong housewives who, as members of "Blue Leaf Club", are permitted to grow vegetables on a vacant site in the fringe area of Seoul by the Agricultural Extension Office of Seoul (Donga-Ilbo newspaper 9.7.92).
- 3 Elizabeth Galloway stresses the differences between the allotment and the guinea garden. Guinea gardens provided opportunity for middle-class citizens living nearby, being cultivated as both ornamental and productive gardens. By contrast, urban allotments arose out of their rural counterpart providing non-agricultural labourers with the opportunity to supplement their low wages by growing fruit and vegetables. According to her, allotments were introduced into urban areas from the early eighteenth century onwards and so existed alongside guinea gardens for at least fifty years, but two concepts were quite different in character. See Harry Thorpe, Elizabeth B. Galloway and Lynda M. Evans, 1977. "The Rationalisation of Urban Allotment Systems- A Case Study of Birmingham," University of Birmingham, Dept. of Geography. See David Crouch and Colin Ward (1988 pp66-7).
- 4 Comparing with 27,680 railway allotments on 2,102 acres (851 hectares) in 1914, the figure in 1918 had grown to 93,473 on 6,081 acres (2,461 hectares). In 1918, it could be claimed that for every five occupied houses throughout the two kingdoms there is one allotment.
- 5 Various explanations are possible for this popularity: first, the free advice and help available during the war had created an interest in gardening among those who paid previously no attention to the allotment; second, just after the war, vegetable prices went up sharply; third, the closure of munitions factories and a general ban on overtime had given many workers more leisure time; lastly, there were in 1919 large numbers of returning ex-servicemen whose resettlement in civilian life was posing many problems. See Crouch and Ward (1988).
- 6 By 1943-4, domestic hen-keepers were producing about twenty-five per cent of the country's officially known supplies of fresh eggs, and by the end of the war the Domestic Poultry Keepers' Council had over one and a quarter million members owning twelve million birds. Pig-keeping was another craze - there were eventually six thousand nine hundred "Pig Clubs" with hundreds of thousands of members, feeding their beasts on kitchen waste (Hough 1984; Crouch and Ward 1988).
- 7 Even today about one household in eight grows food crop in their gardens or greenhouses, and one in 40 maintains one of Britain's 480,000 allotments. See Button (1989 pp64-5).

- 8 Windmill Hill City Farm in Bristol is a case for this: in 1976 when Bristol City Council proposed to use the four and a half acres (1.8 hectares) of scrap yard as a lorry park, a group of local residents objected this project. Once the lease for city farm was permitted in 1977, volunteers began work clearing the site; in 10 years, the farm has transformed the neighbourhood from a landscape of rubble and abandoned cars to a thriving community centre enjoyed by local residents. See details in Davidson (1988 pp33-7).
- 9 It is interesting to note that economic necessity is often cited as the main reason for gardening. Seen in this light the movement can be seen as a result of the many cuts in social services. See Luz (1987).
- 10 See such literature as Barr (1969), Wallwork (1974), Bradshaw (1979; 1983), Lavender (1981), Dennington and Chadwick (1982), Kivell (1987), Thornton (1989), DOE (1989), and Holden (1989).
- 11 The ranges are from reports (Wilson and Womersley 1976; Cantell 1977; Nabarro and Richards 1980; Civic Trust 1988); through various books (McKeen 1977; Moss 1981; Chisholm and Kivell 1987); and articles concerning specific cities such as Liverpool (Stones 1977), Manchester (Adams, Baum, and MacGregor 1988), London (Joseph 1980), Stoke-on-Trent (Ball 1989), and South Wales (Bruton and Gore 1981), and other general articles such as Burrows (1978), Nabarro (1980), Thompson and Edmondson (1984), Hall (1987); and to the in-depth research into the subject (Burrows 1977; Atkins 1979; Nicholson 1982).
- 12 The idling time of development in Chang's research is defined as the time period from completion of land subdivision to the beginning of actual building activities (Chang 1987 p87; see also Chang 1988).
- 13 Although there are a variety of definitions for derelict land (Beaver 1946; Oxenham 1966; Goodman and Bray 1975), the official definition of derelict land used in the British government publications (Ministry of Housing and Local Government 1966) is that "land so damaged by industrial and other development that it is incapable of beneficial use without treatment".
- 14 Waste land is defined as "any land which because of neglect or degradation is not being used to its full potential" (University of Liverpool Environmental Advisory Unit 1986).
- 15 SLOIP is Lionel Brett's expressive acronym for Spaces Left Over In Planning, which indicates usually empty fields and ill-maintained lots awaiting development, which can be easily spotted in new towns (Relph 1987).
- 16 In 1973, the Architectural Review forced a public debate on what it termed "Space Left Over After Planning" (SLOAP), in which the needlessly spacious roads and highways standards, and the often wasteful lay-outs of housing estates and open space were criticized (Moss 1981).
- 17 Choseon-Ilbo newspaper, 20 July 1990. Seoul city government will notify publicly the properties as "properties without ownership". After 6 months of notification the properties will be included into the national property list.
- 18 The empty land here excludes the land whose area is less than 10,000 m<sup>2</sup>.
- 19 According to the 1989 Land Readjustment Project Act, there are four ways of initiating a Land Readjustment Project. Firstly, a group of landowners can initiate the project by forming a Land Readjustment

Association. Public institutions such as the Korea National Housing Corporation, local government, and central government such as the Ministry of Construction can also initiate the project. However, most of the projects implemented in South Korea have been initiated by local authorities.

- 20 The so-called Adickes Act was submitted to the Preussen Parliament by the mayor of Frankfurt in 1892, which was passed in 1902 as the name of the Land Readjustment Project Act. Meanwhile in Japan, there was an act of agricultural land readjustment in 1909, on which some project had been based until the enactment of the City Planning Act and the Building Act in 1919. In Japan, the first land readjustment project was implemented in Kobe in 1923 (see Kim, Eui-Won 1985).
- 21 Of course possibly there had been periods of more wide-spread land vacancy in Seoul that could have occurred during another Japanese occupation of Seoul in 1592-1593 when 80% of Seoul was destroyed (Kim, Bong-Ryol 1991), the Great Fire in 1619, and the Chinese invasions of 1627 and 1636. It was not until the early 18th century that the full-scale restoration began, which had lasted until the middle of the 18th century. But this kind of land vacancy occurred accidentally by war or fire so that it must be excluded from the consideration of vacant urban land being discussed here. The vacant land in Seoul occurred during the Korean War (1950-53) should also be excluded from the consideration. The vacant sites occurred during and after the war were soon developed, and the present vacant land in south Seoul has nothing to do with the vacant land occurred during the Korean War. When the war broke out, the area of Seoul was 268 km<sup>2</sup>, which is only northern part of present Seoul, and most of the present vacant land is in south Seoul or the fringe areas of Seoul.
- 22 At the end of 1991, all the LRPs in Seoul had been finally finished. Since 1937, 139.76 km<sup>2</sup> in 58 project districts have been developed. That consists of 40% of the whole urbanised areas of Seoul (Jungang-Ilbo newspaper 4.1.1992).
- 23 Squatting is not exclusive to the Third World. In the cities of Western Europe there are two main types of squatting: the taking over of existing empty buildings, and converting them to living accommodation - for example, the cases in London, Amsterdam, Copenhagen, and Berlin; and the illegal buildings on vacant land - for example, the cases in Athens, Barcelona, and Ankara (McAuslan 1985).
- 24 This club became so popular that the member increased to more than 500 in less than 6 months and it changed its name to "Farming with Citizens". The Office which initiated this programme has a plan to open more cultivating plots in the fringe areas of Seoul such as Dobong Ku, Kangseo Ku, Kangdong Ku. The membership fee is maximum 10 pounds a year. See Jungang-Ilbo newspaper (25.1.1993).
- 25 But at the same time Friedmann (1987) argues that social learning is too removed from action, particularly the confrontations that are the route to effective progressive social change. See Healey (1992).

# Chapter 6

## *Causal Mechanism*

### 6.1 INTRODUCTION

There are three dominant modes of case study analysis (Yin 1989): pattern-matching, explanation-building and time-series analysis. Basically the mode of explanation-building is applied to this thesis. In addition, according to Yin (1989), there are two general analytic strategies: relying on theoretical proposition and developing a case description. The analytic strategy of the thesis depends basically on two theoretical propositions: the causal mechanism of city farming is a social learning process; city farming conforms to the conditions of sustainable urban development. This chapter deals with the former while the next chapter will examine the latter.

Each case site includes five individual cases. The analysis of each case study site is divided into three parts: site description, individual case analysis, and causal analysis. As mentioned in Chapter 2, the unit of analysis for the causal analysis is each individual case in a case site. That decides the framework of the organisation of this chapter. Based on the replication logic (see Chapter 2), the analysis will be conducted across the three case study sites in sequence, which reveals the similarities and differences of the findings among city farmers and between each case site. In the final section of general analysis, the whole analyses in the previous sections are summed up to conclude that a social learning process is the causal mechanism of city farming.

The empirical evidence for the analysis is provided basically by the interviews with city farmers. However, it must be supported by the interviews with public officers, documents, observations and other sources of information.

## **6.2 CASE STUDY OF THE MOK DONG SITE**

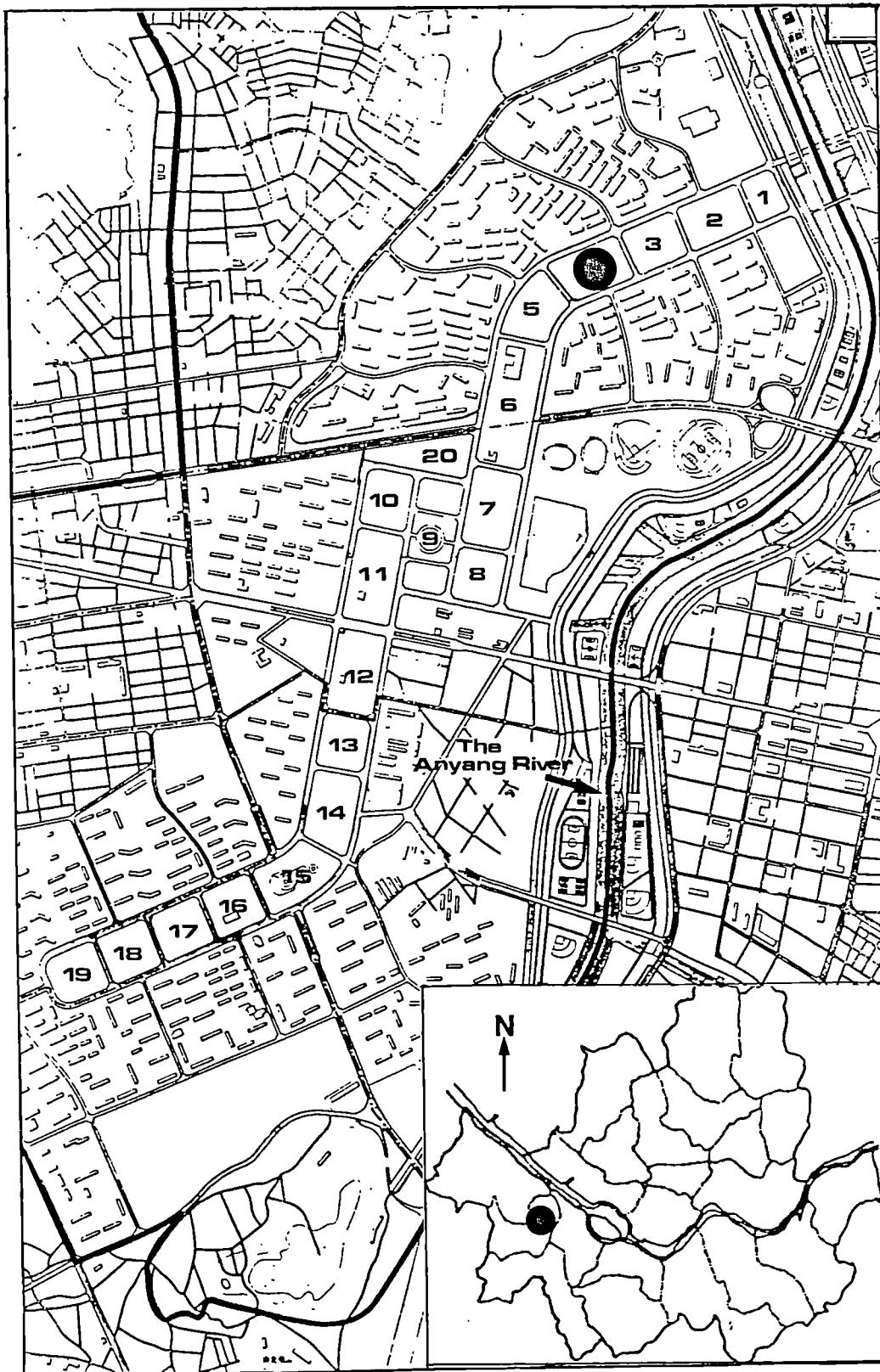
The Mok Dong case site is one of the three case study sites for the research. This site is one of the largest city farming sites in Seoul, representing typical characteristics of the city farming activity in Seoul. The selection of this area as a case study site followed the criteria set out in Chapter 2 through the pilot study (see Chapter 2). This section consists of three parts: site description, individual case analysis, and causal analysis.

### **6.2.1 Description of the Mok Dong Case Site**

#### **6.2.1.1 Site History**

This site is approximately 10 km south-west from the city centre of Seoul across the Han River (see Map 6.1 and Plates 6.1 and 6.2). There lies a flat, long and slender area of land which is surrounded by hills and a river. This area is called as the Mok Dong district. Before it was developed as a new town,<sup>1</sup> the land had mostly been used for agriculture. The history of farming in this area started some 60 years ago when an embankment was built along the Anyang River. Until the end of the Choseon dynasty (1392-1910), the area was a marshy grassland which was often flooded. It was grazing land for horses and belonged to the royal court. It was therefore called Mok Dong meaning "horse raising place".

The land, however, has been unsuitable for farming since the early 1960s due to the increasing inflow of sewage from the neighbouring residential areas and



Map 6.1 The Case Site of Mok Dong



Plate 6.1 The Mok Dong City Farming Site.



Plate 6.2 An Adjacent City Farming Site on Block 3. This Site is Intact by Any Works and Well Organised Comparing with the Case Site.

due to the industrial waste from the factories located along the Anyang River. This area was incorporated into Yungdungpo Ku in 1963 to be part of the city of Seoul. Yangchon Ku, the local authority in charge of the site, was in 1988 separated from Kangseo Ku which had already been divided from Yungdungpo Ku in 1977. But the real history of the site began in October 1964 when squatters all around Seoul were relocated to this desolate area, particularly along the west bank of the Anyang River.

In 1964, people from 6 eviction sites in central Seoul were loaded onto garbage trucks and transferred to Mok Dong, then farmland covering some 400 hectares. In 1968, when the Yeoido island in the Han River where the National Assembly building is located began to be redeveloped and an airport there was closed, small shopkeepers and street vendors living near the airport were also moved to Mok Dong. During the 1970s, Mok Dong once again became the home of the evicted from other redevelopment areas. Along the west bank of the Anyang River, a multitude of low income families formed a squatter settlement without any amenity or sanitary facilities. The poor living conditions of the area were further degraded by traffic congestion and noise arising from the heavy traffic on the Kyungin Express Way (Seoul-Inchon).

On the 11th April of 1983, Mok Dong New Town Development Plan was announced, and in June the same year the site was designated as a Proposed Development Area by the Ministry of Construction. At the time about 32,000 residents, most of them squatters, lived there. Finally, in December 1983, the construction work for the development started. In 1984, it was subject to redevelopment and 3,200 houses were destroyed. Some 23,000 apartments were built but their actual sale prices were far too high for local residents. No compensation was given to the 5,200 tenants of the squatter settlement. The farmers who owned the land were paid one sixth of the market value for the



land (Environment and Urbanization 1989). In 1988, the whole apartment units for 26,629 households were completely occupied except for the so called central spine area which would accommodate, according to the original plan, amenity facilities such as shopping centres, churches, and leisure facilities. In May 1990, the 20 blocks of the central spine area were designated as an Urban Design District. The 20 blocks of 627,374.4 m<sup>2</sup> in the middle of Mok Dong district are still vacant for further development, and so constitute one of the biggest city farming sites in Seoul. One block of the twenty was chosen to be the case site for the research.

For the first time in Seoul, the site was developed with a special method called Public Land Development<sup>2</sup>. The city government had complete responsibility. It purchased the land in the project site, drew up a plan, and directly supervised the construction works. Land use was planned based on the public concept of land, but in fact was not implemented according to that principle. Faced with continuous conflicts with the mostly poor local residents there,<sup>3</sup> the city government resolved the problems with the squatters by introducing a method called Partnership Redevelopment<sup>4</sup>.

#### **6.2.1.2 Land Use in and around the Site**

The area of the case site is 33,100 m<sup>2</sup> and the site, known as the north district centre, is divided into 17 lots (see Table 6.1). In fact, the central spine area including this case site, whose total area is 627,374.4 m<sup>2</sup>, should have already been sold and developed as planned. The first public tender for the 72 lots of the central spine area (7 lots for banks, 3 for petrol stations, 1 for general residential use, 1 for a shopping centre, 2 for nurseries, and 58 for general commercial uses) was offered in November 1990, in which only 11 lots were sold. Soon after, the second public tender for 65 lots was offered in April 1991, in which only 5 lots were sold including 2 lots in Block 4, the case site.

Table 6.1 Functions of Each Block in the Central Spine

Bl. No.	Use	Area (m <sup>2</sup> )	No. of Lots	Existing or Planned Facilities
1	Park, Green	12,924	1	Park completely developed
2	Education, Office	31,300	9	School, Police Station, Church
3	Housing	26,050	1	Apartment Block or Reserved Site
4	District Centre	33,100	17	North District Centre, Temple, Dong Office, Police Station
5	Park, Green	29,714	1	Paris Park
6	Culture, Welfare	57,550	17	Library, Church, Telephone Office, Youth Centre, Post Office
7	Commerce Office	38,350	9	Christian Broadcasting Company
8	Office Centre	24,838	4	CBD for Mok Dong
9	Park, Culture	49,941	3	Central Park, International Conference Hall, Cultural Facilities
10	Office Centre	24,925	6	Korea Telecom owns all the lots, planned office facilities
11	Commerce Office	24,228	6	General Commercial Area planned
12	Readjustment	49,721		Excluded from Urban Design Area
13	Commerce Office	31,488	20	Part of it as readjustment area, excluded from Urban Design Area
14	Admini. Office	35,148	17	Public Facilities, Korea Telecom Branch, Patent Administration Off
15	Park, Green	33,709	1	Public park
16	Admini. Office	23,800	6	Ku Office, Tax Office and other Admini. Office, Police Station
17	Culture, Welfare	25,300	12	Ku Community Centre, Social Welfare Centre, Commercial Uses
18	District Centre	23,800	11	South District Centre
19	Housing	25,151	4	Church, Police Station, Apartment Block, Reserved for other uses.
20	Commerce Office	26,641	2	Newly designated block. Shopping Centre & Hotel planned

Source: Seoul City, The Development of Mok Dong New Town

The reasons for this difficulty of land sale can be suggested in many ways: the size of a lot is generally so big that the land price for each lot is extremely high; property tax acts containing such regulations as those requiring strict examination of financial sources dissuade potential purchasers from buying the lots; in nearby Yungdungpo Ku, there are already big shopping centres. Whatever the reasons might be, the residents of Mok Dong district suffer from lack of amenities. Furthermore the desolate landscape of the weed and gravel strewn empty spaces, sometimes used as rubbish tips must be an eyesore to the inhabitants and possibly health risks too.

At present 5 out of 17 lots in the Block 4, the case site, have been sold.<sup>5</sup> One mixed-use building called Usung Eiffel Town Building was constructed in 1992 and another building is being constructed on the site. On this Block, there are a temple, a police station, and Mok 5 Dong Office. This case site was replotted in November 1987 and registered in the same month as the city government's property. The case site is designated as Urban Design District, Parking Improvement District and Aesthetic District. The site is zoned as general commercial zone. The summary of the land use characteristics of the case site is as follows:

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Lot number	907 - 1 to 17 Mok Dong
Area	33,100 m <sup>2</sup>
Land category	Housing lot
Ownership	Seoul city government

Land price	About 10 million won (£1 = about 1200 won) per pyong (1 pyong = 3.3m <sup>2</sup> ), that is 2,525 £/m <sup>2</sup> , as of 1991. In 1983, this site, then agricultural land, was compulsorily purchased by the city government with 70,000 to 130,000 won per pyong (17.7 to 32.8 £/m <sup>2</sup> ).
Zoning	General commercial zone; urban design district; parking improvement district; aesthetic district.
Roads and traffic	Surrounded by four 4 lanes roads in which two roads are used for bus routes.
Land use around the site	Block 3 is still vacant and used as a city farming site. Block 5 is a public park.
Previous use	The site was originally grazing land for horses, which then changed to be a paddy field about 60 years ago. This site was a low and moist land.
Duration of vacancy	Since 1964 the case site and the surrounding areas had been used as settlements for the evicted squatters from all over Seoul until 1983. According to the definition of the thesis, this site has been vacant since 1983.
Reasons for vacancy	The lots in the case site are not sold properly as planned because of high land prices and complex building regulations.
Future development plans	This site is planned as the north district centre which will be complete if the whole land is sold.
Prospects of development	As the other Blocks in the central spine area are mostly vacant at present and no specific measures are now taken, it is hard to predict when the site will be totally developed. But under present circumstances, it seems that the case site would not be fully developed in the near future, in five years, for example.

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This section has reviewed the site history and the general situation of land use in and around the case site. Such a review is important for examining the causal mechanism of city farming because to know what is a precondition to understand why. The next section analyses the causal mechanism of city farming in the Mok Dong case site.

## 6.2.2 Individual Case Analysis

Based on the social learning model discussed in Chapter 5, this section examines how and why city farming was initiated and is still being practised on the Mok Dong case site. The analysis is conducted rather qualitatively. Basic background information about the actors and the farming activity in general is briefly summed up before each individual interview result is provided.

### 6.2.2.1 Case 1: Mrs Jeong

Sex	Female
Age	76
Address	Mok Dong 2 Danji (Residential Block)
Hometown	Jeonju
Education	Primary school 4th year dropout
Religion	Buddhism
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Area	About 100 m <sup>2</sup> (total 3 places on the same site)
Kinds of vegetables being cultivated	Eggplant, red pepper, lettuce, crown daisy, garlic, bean, pumpkin, gourd.
Attached facilities	A temporary frame used for a support for pumpkin.
Stolen vegetables	No
Trampling damage	No. There is a fence around this plot.
Methods of watering	Tapwater from the nearby temple.

In 1990 when she went out for a walk to the public park beside the case site, she saw a woman doing field work with a hand trowel. The scene motivated her to take an interest in city farming. She started farming here quite by chance in 1990 when she was given some pumpkin and bean seeds by an elderly woman who cultivated here at the time. For her, city farming is a pleasant pastime and good for health because it is a kind of exercise in the open air. Before she started city farming here, she had spent her pastime doing housework since she joined up with her daughter. During that time, even though her daughter insisted on taking on a housemaid, she persuaded her to share the housework between them.

She had no experience of farming when she lived in her rural hometown, but cultivation was naturally familiar to her so that she was able to easily learn how to grow vegetables when she took up city farming. However, on two occasions she failed to grow beans because at the earlier stage of the growing, pigeons damaged the sprouting shoots. After the failures, she found it useful to apply vinyl mulching to her vegetables just after shoots started to appear. The method was economical and effectively prevented pigeon damage. She also learnt that it was more efficient to have a seed bed at the early stages of growth before transplanting the vegetables to their final positions.

She built a makeshift shed on a part of her plot. The shed was also used for pumpkins to climb. She remembered that the sight of pumpkins on the roofs in her rural hometown made a fine view. For that makeshift shed, she collected every possible item from sticks, twigs, rusted iron bars to strings and nylon cords. Almost all city farmers here, including herself, used the tapwater of a Buddhist temple nearby for watering. For that, they paid one or two pounds a year but they gave it as a form of donation to the Buddhist temple because the monks there would otherwise not receive the money.

#### 6.2.2.2 Case 2: Mr Lee

Sex	Male
Age	65
Address	Mok Dong 5 Danji
Hometown	Seoul
Education	University graduate
Religion	Protestantism
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Area	100 m <sup>2</sup>
Kinds of vegetables being cultivated	Bean, pumpkin, welsh onion, green perilla, chinese cabbage, radish, mallow, taro.
Attached facilities	No
Stolen vegetables	Very rarely
Trampling damage	No
Methods of watering	Tapwater from the nearby temple.

Having resigned from his job of a public officer, he had nothing to do until he noticed the site was lying idle and he started city farming in 1990. He said that it is good for his health and it is an excellent leisure activity comparable to angling, one of his favourite leisure pursuits.

He told the interviewer that a reporter from a newspaper company (he recalls it unconvincingly as Minju-Ilbo newspaper) came out to find out the facts about city farming on vacant land. He said that the reason why this site is left unsold must be high land prices. According to him, the average land price of this site went up to 10 million won per pyong (about 2,500 pounds per m<sup>2</sup>) while it was about 100,000 won per pyong (about 25 pounds per m<sup>2</sup>) in 1983 when the city government bought this land by compulsory purchase.

He said that the head of Mok 5 Dong Office actually permitted city farming here tacitly. He said that there are some city farmers who are interested in selling the harvested vegetables to which he is opposed because city farming for him is just a leisure activity and he believes it must be so. He sometimes collected vinyl waste or other rubbish strewn around the site to burn them. Whenever he came to his plot in working clothes, he noticed that the porter of the apartment building where he lives turned his eyes away from him. He said that this behaviour shows that people still consider agriculture a very lowly job.

He had some technical problems in farming when he took up growing vegetables here in 1990. At the time, the soil fertility was so poor that vegetables did not grow well. He toiled to remove rubble and other debris strewn all over the site when he began to make his own plot here for the first time. He tried, in the spring of 1990, chinese cabbages and radishes, all of which failed to grow. Later he knew that green perillas were growing particularly well on this kind of soil so that in the end he attempted to grow some green perillas with

tremendous success. He worked here for 2 to 3 hours everyday. He acknowledged that yields are proportional to the effort he has made.

In 1991, the plot he had cultivated was dug over to bury water pipes and sewerage facilities, which were connected to a building under construction at the time. The water supply and drainage works completely destroyed his plot. Unfortunately, the water and sewerage pipes underlay his new plot. Another problem which occurred from the works was the transfer of the fertile top soil of his previous plot to other plots nearby. He therefore lost his cultivated soil, getting some weed-infected, low quality soil in return. Because the quality of topsoil on this kind of site is extremely important for farming, the removal of his previously fertile topsoil resulted in worse yields now than before. His wilted vegetables compared unfavourably with the flourishing ones nearby.

He said that a string of spring onions, for example, can be sold at 500 won (about 40 pence) in the market, and a keun (600 gram) of red peppers at about 3,500 won (about 3 pounds), when the researcher met him in 1990 for the pilot survey. He paid two pounds for a packet of chinese cabbage seed. He was much more sensitive to the cost and benefit of farming than anybody else in the case site. For example, the reason why he chose welsh onion in particular was that a packet of the seed was cheap to buy and he would have far better yields than for other vegetables.

### 6.2.2.3 Case 3: Mrs Kwon

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Sex	Female
Age	66
Address	Mok Dong 2 Danji
Hometown	Andong
Residence in Seoul	18 years
Education	Primary school
Religion	Buddhism



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Area	The first plot: 30 m <sup>2</sup> ; the second plot: 150 m <sup>2</sup>
Kinds of vegetables being cultivated	The first plot: lettuce, spring onion, pumpkin, cabbage; the second plot: mung bean, lettuce, chinese cabbage, chard, crown daisy, red pepper
Amount of production	Some bottles of sesame oil, a mal (about 18 litres) of beans.
Attached facilities	No
Stolen vegetables	No
Trampling damage	Yes
Methods of watering	Tapwater from the nearby temple, or water from a mineral spring of the nearby hill.

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Her motivation for starting city farming in 1990 was simply as a pastime after realising that this vacant site was lying idle. She had two separate plots on this site. The reason for this strategy can be understood if one considers the recent turmoil that happened on this site during the works. Nobody was able to predict which lots of this site would be developed and when. So this strategy was a way of minimising risks of losing her city farming opportunity which could be discontinued at any time when some building lots were to unexpectedly be developed on this site.

She noted the damaging effect of the mess of the ongoing building construction site beside the newly built Usung Eiffel Town Building, whose work was now discontinued allegedly due to the lack of finance. An unnecessarily widely occupied area around the construction site, on which iron bars and other building materials were openly stored, disturbed the city farming activity here.

To prevent damage to the vegetables by pigeons, she practised vinyl mulching. She got up early in the morning about 3:30 to give the vegetables the water that was brought in a bucket from a hill spring nearby. Her other leisure pursuits were climbing and badminton.

#### 6.2.2.4 Case 4: Mr Sohn

Sex	Male
Age	74
Address	Mok Dong 5 Danji
Hometown	Jeumchon
Residence in Seoul	5 years
Education	No schooling
Religion	Nothing
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Area	20 m <sup>2</sup>
Kinds of vegetables being cultivated	Pumpkin, lettuce
Attached facilities	No
Stolen vegetables	No
Trampling damage	Yes
Methods of watering	Tapwater from home

When he was young, like many other people, he suffered from near starvation. This was a hidden motivation to start city farming when he saw the land near to his apartment house idling in 1990. Another reason for taking up farming here was to keep up his health. He lived with his wife in his son's place. The reason why he did not go to school when he was young was that his family was too poor to pay the fee.

He said that the Dong Office must be happy with the city farming activity here because the city farmers weed out and maintain this idle land in the office's place. He said that no one now can dare to throw away rubbish on the growing vegetables. He also said that no young people would have an interest in city farming.

This plot was just beside the construction site in progress for the building of Hankook Tyre Company. He recognised that it is necessary to have a shopping centre in this district for the community. So he admitted that there is no other way but to give up farming here when the site is finally developed.

He pointed out the drainage problem after raining or watering as one of the most difficult technical problems on his plot. He covered the vegetables with waste papers to prevent damage by pigeons, and rats and mice. He came everyday to the plot. He went to the nearby hill to fetch a bucketful of mineral spring water for the purpose of drinking and sometimes for watering. Except for this farming, he did not have any other leisure pursuits. So he usually went to a centre for the elderly or looked around construction works here and there.

#### 6.2.2.5 Case 5: Mrs Cho

Sex	Female
Age	73
Address	Mok Dong 2 Danji
Hometown	Kimjae
Residence in Seoul	35 years
Income level	Retirement allowance for her husband and rental income from a shop they own are enough for the couple to live
Education	Primary school
Religion	Buddhism
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Area	She has three plots on this site with each area being about 100 m <sup>2</sup> .
Kinds of vegetables being cultivated	Peanut, red pepper, spring onion, bean, pumpkin, chinese cabbage, green perilla.
Attached facilities	No
Stolen vegetables	No
Tramping damage	No
Methods of watering	Tapwater from the temple.

She toiled to get rid of stones scattered on the plot when she first began farming in 1990. She said that farming needs a lot of care and effort. Many farmers here come to the site about 5 o'clock in the morning or late in the evening to avoid the extremely hot summer sunlight. She comes to her plot at least twice everyday. She said that she felt tired when she first started, but it is now all right and she wants to come here all the time.

She had lived in the Usung apartment block of Banpo area for 13 years, where she grew vegetables on a vacant site around there for some time, before moving here 3 years ago to resume city farming on this site. When she lived near the Express Bus Terminal in Banpo area, she usually spent time going to a market nearby, looking around and sometimes buying cheap items.

There was no particular reason for selecting those vegetables above, but certainly beans were believed by her to have good yields here. She once cultivated a plot of 350m<sup>2</sup> on the site, which was destroyed during the Usung Eiffel Town Building construction last year. She had three separate plots on this site with each area being around 100m<sup>2</sup> to diversify the risk of losing her farming opportunity.

She recollected her childhood when many people with swollen face suffered from hunger. So she appreciated the achievements of the previous President of South Korea, President Park, for his elimination of poverty from South Korea and for his encouragement to take any vacant land for cultivation. Her husband was well educated having graduated from high school and worked with a bank, and he helped her to grow vegetables here. She said that her youngest daughter died of leukemia at the age of 19 and another daughter lives in the USA with her husband who is a doctor. She also had a son and another daughter who both live in the same Mok Dong area.

### 6.2.3 Causal Analysis

Based on the social learning model developed in Chapter 5, a causal analysis is conducted in this section. As Friedmann (1987) points out, a social learning model is particularly useful in explaining a self-help community project. In any social learning model, there are a number of key points. The identification of

city farmers as actors and a leading agent, and their relationships with each other is a prerequisite to understand what city farming really means. The other key points are reality learning and practice learning. They are in a continuous mutual interaction process. City farming is, in short, a kind of self-help social activity at the community level. This section is divided into four: actor, reality learning, practice learning and general causal analysis.

#### **6.2.3.1 Actor**

Both the pilot study and the main case study show that almost all the city farmers here are elderly people over 65. All the interviewees in the case study site live in the same community, but they are not all neighbours because the so-called central spine area and two 4 lanes roads divide the Mok Dong district into two parts. Most of them are from rural areas. Without farming experience, they are nonetheless familiar with field work. Most of them are under-educated as are most of the other people of their age because, in their childhood, the mass education system was not provided. Living in a middle to upper income residential area and having nothing particular to do as a pastime, most of them are desperate to find leisure pursuits. Although they are in fact not so poor, their pocket money is not enough to engage in other leisure pursuits. This fact is related to their interest in the economic benefits from the activity.

Unfortunately the researcher could not contact the leading agent who initiated city farming on this site. Few of the interviewees mentioned the leading agent. But there surely was a leading agent on this site when the researcher did his pilot study. There can be a number of reasons why a leading agent is inactive: the construction works on this site in 1991 changed the pattern of plot occupation; some parts of the site are now not available for city farming after the water supply and drainage works; however, this site is still so large that there is not much communication between city farmers on the site even if they

consider themselves as a member; now that the site is so subdivided, there are no farmers who cultivate a large-scale plot. All these aspects seem to contribute to the diminishing role of the leading agent on this site.

#### **6.2.3.2 Reality Learning**

In terms of reality learning, the perception of the existence of vacant land is crucial. The case study site has been vacant since 1983. It was not until 1988 that the construction of the whole apartment blocks was completed with such planned public facilities as a public library and public parks still unfinished. Even if the recent works disrupted city farming here, realising that all the lots could not be developed in the near future, most of the city farmers resumed cultivation under worse conditions than ever before. Experiencing that kind of turmoil, when the works finished, some of the interviewees began to occupy 2 or 3 plots on the case site in order to diversify the risk of losing their farming opportunity.

There are still some warning boards standing on the edge of the site with different content from the one on display in 1990. At the time, there was a notice on a board on which it was written that farming on the site was prohibited, but now "farming" has been omitted from the list of prohibited activities. Now it specifies the list of activities prohibited here such as rubbish dumping, gravel extraction, and the illegal loading of materials. This might indicate a softening of attitudes by the Ku and Dong Offices towards city farming.

#### **6.2.3.3 Practice Learning**

Most of the plots are small. The enormous variety of vegetables they grow simply shows that the plot holders enjoy cultivation for its own sake as if it were horticulture. The amounts they produce are so little that they consume the harvested vegetables themselves or distribute them to their neighbours. Even if

there are no special facilities or fences, cases of stolen vegetables and tramping damage are relatively few. One of the most significant but difficult tasks in city farming is watering. Most of the city farmers having plots nearby use the tapwater from the temple; but plots far away from the temple are watered by home tapwater or mountain spring water brought by the city farmers to that part of the site.

Most city farmers agree that farming work is hard. However, they enjoy it because it is free, producing fresh vegetables, helping keep up their health, and most importantly it is a wonderful leisure activity. Although most of the interviewees say they have no experience of cultivation, the fact that they come mainly from rural areas would indicate a familiarity with farming. Therefore farming techniques are easier for them to learn than for any other citizens. However, the fact that most have their own failure stories shows that they actually learn by a process of trial and error. On this site the role of leading agent is weak and few farmers mention the leading agent.

#### **6.2.3.4 Causal Analysis**

The relationship between vacant land and city farmers is clear. However, the relationship between Ku local government and city farmers is not clearly identifiable. But both know that city farming is an acceptable way of using the neglected site. While Ku and Dong officers seem to neglect this issue, they are in fact not comfortable with the problem of this vacant land. The local government has simply turned a blind eye to the existence of vacant land and the practice of city farming. As shown in the interviews with public officers (for details, see the interviews in the next chapter), Yangchon Ku local authority and the Dong Office have tacitly permitted the cultivation of vacant land simply because there are no other ways to manage the huge area of vacant land.

The reserved empty land of 627,374.4 m<sup>2</sup>, in which the case site occupies 33,000 m<sup>2</sup>, in the central spine area is now being developed. But the reason why the development is delayed even at a time when residents in this district suffer the shortage of amenities, is, according to the explanation of a Mok 5 Dong officer whom the researcher interviewed: firstly the land prices on offer are higher than the use value of the land; secondly it is not attractive for a land developer to buy a building lot in a district which has yet to form a sufficient market potential with reasonable threshold; finally, he suggests the location of Blocks 3 and 4 (see Map 6.1) is not suitable for rapid development because the blocks are located on the fringe of Mok Dong district.

According to a chief clerk of the Urban Maintenance Section in the Department of Urban Maintenance of Yangchon Ku, there are at least two major reasons why the central spine area is not developed properly. Firstly, all the blocks are designated as Urban Design District with rigorous design standards for each lot. Secondly, the scale of each building lot is so large (from the smallest of a hundred square metres to the largest of thousands of square metres) that it is not easy to find purchasers who can afford to buy the lots.

Therefore, under these circumstances, there is nothing left for the Ku government to do because land problems are solely under the control of the city government. The case study site became vacant in 1983 in the period of the Rapid Growth stage (1963-now) as suggested in Chapter 5. The site stopped being used properly due to the Mok Dong district development project, and it was no longer allowed to reside in the squatter settlement or cultivate the agricultural land there. The development of this vacant site is delayed because even though the site is now available for development, demands are quite low due to high land prices and other economic reasons such as the lack of economic potential of the site and the economic recession in general.



The case site is related to a unique land development method: the first experiment of Public Management System (it is also called Public Land Development) as a means of urban redevelopment. The unexpected consequences of the land development method can be said to be the real cause of land vacancy in the case site. Firstly, over-ambitious and too strict urban design standards in fact prevent land developers from buying and developing the vacant blocks in the central spine area of the case site. Secondly, as many critics point out, in the name of Public Management System, the city government itself became a land speculator trying to get profits from the development to provide finance for the development, which resulted in high land prices. Thirdly, under the present economic recession, without changing the development plan, there is no possibility of the area being developed in the near future.

City farmers are social subjects. In particular, they have relations with their families and neighbouring city farmers, and also with the community neighbours and relatives. With the experience of either farming work or just rural life, the elderly can easily learn how to cultivate. But more importantly, they are encouraged when they learn that a huge and neglected site of vacant land is near to their homes and that some of their neighbours already occupy parcels of the land in order to enjoy farming and to harvest some vegetables. Furthermore, nobody deters them from using the land in that way. On this site the leading agent assumed in the social learning model suggested in Chapter 5 is not identifiable. That does not necessarily mean that there have been no leading agents on this site. The fact that few interviewees referred to a leading agent implies that on this site at present the role of leading agent is negligible.

In short, if there is a site of vacant land near to a community, and if there are a considerable number of old people who are marginalised from the society, and

if local government neglects this issue, and if vegetable prices are very high, then there is a tendency for the elderly to colonise the neglected vacant land to do city farming. Realising that a large site of vacant land is laying idle around their community, the elderly in Mok Dong area started to colonise the vacant site. The motivation is rather egoistic: to enjoy farming as a leisure activity, to keep up health, and to supplement their incomes, for example. Through the process of practice and reality learning, a site of vacant land has evolved to take the present shape of city farming site.

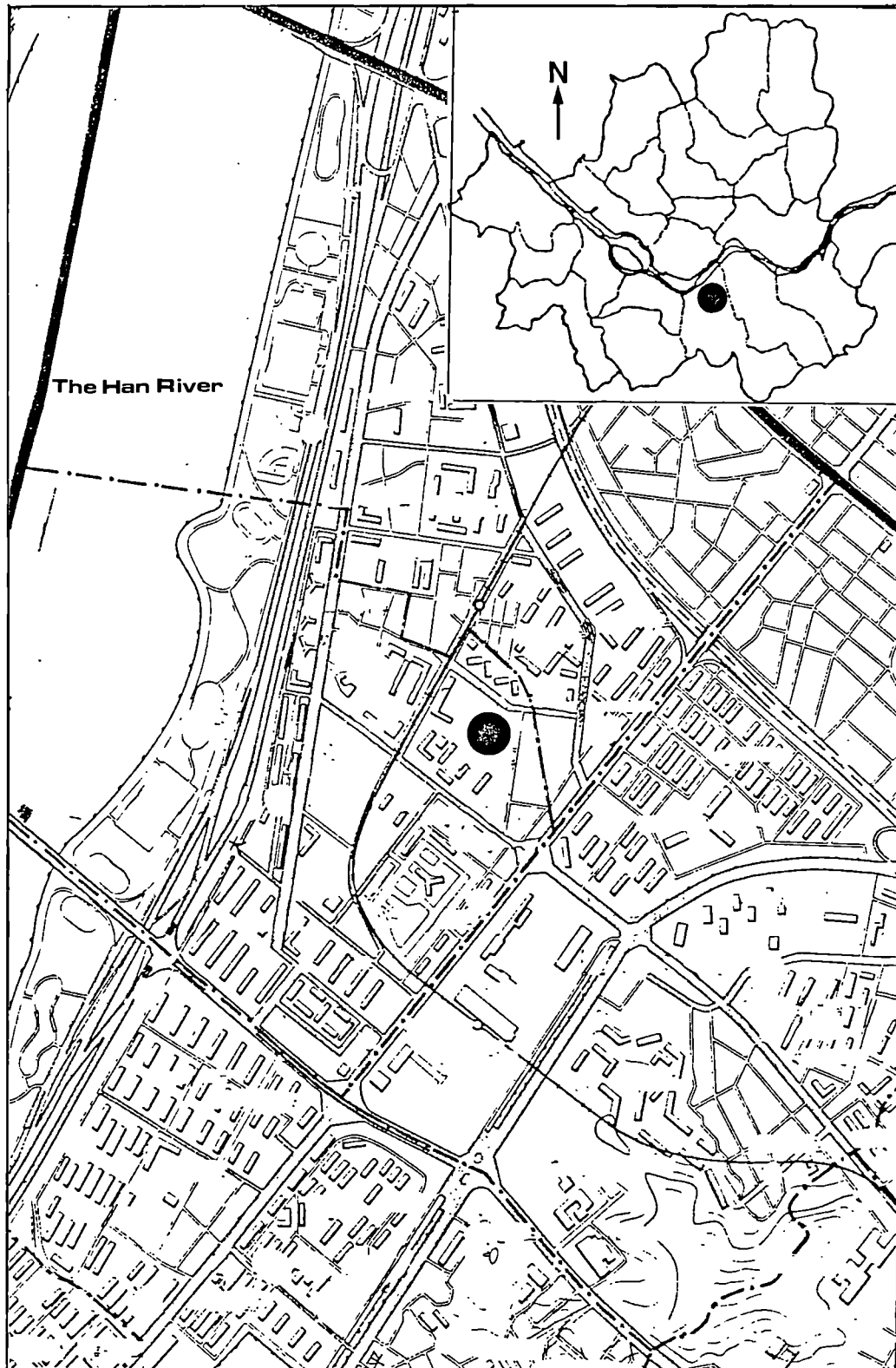
### **6.3 CASE STUDY OF THE BANPO DONG SITE**

The Banpo Dong case site is the second of the three case study sites for the research. This site is surrounded by residential areas, and it is near to big shopping centres and an express bus terminal. Although the scale of the site is smaller than that of the Mok Dong case site, this site has one of the longest city farming histories in Seoul. As in the case study of Mok Dong, this section consists of three parts: site description, individual case analysis, and causal analysis.

#### **6.3.1 Description of the Banpo Dong Case Site**

##### **6.3.1.1 Site History**

The case site is in the south-east part of Seoul across the Han River (see Map 6.2 and Plates 6.3 and 6.4). The present Seocho Ku area, where the case site is located, was incorporated into Seoul in 1963. The present name of Seocho Ku was given in 1988 when it was subdivided from Kangnam Ku which was created in 1975 when it had replaced the previous area administered by Yungdungpo Ku and Seongdong Ku. Seocho Ku is mostly a hilly district under 100m above sea level, and this area has a typical grid-iron street pattern.



Map 6.2 The Case Site of Banpo Dong



Plate 6.3 The Banpo Dong City Farming Site in 1990.

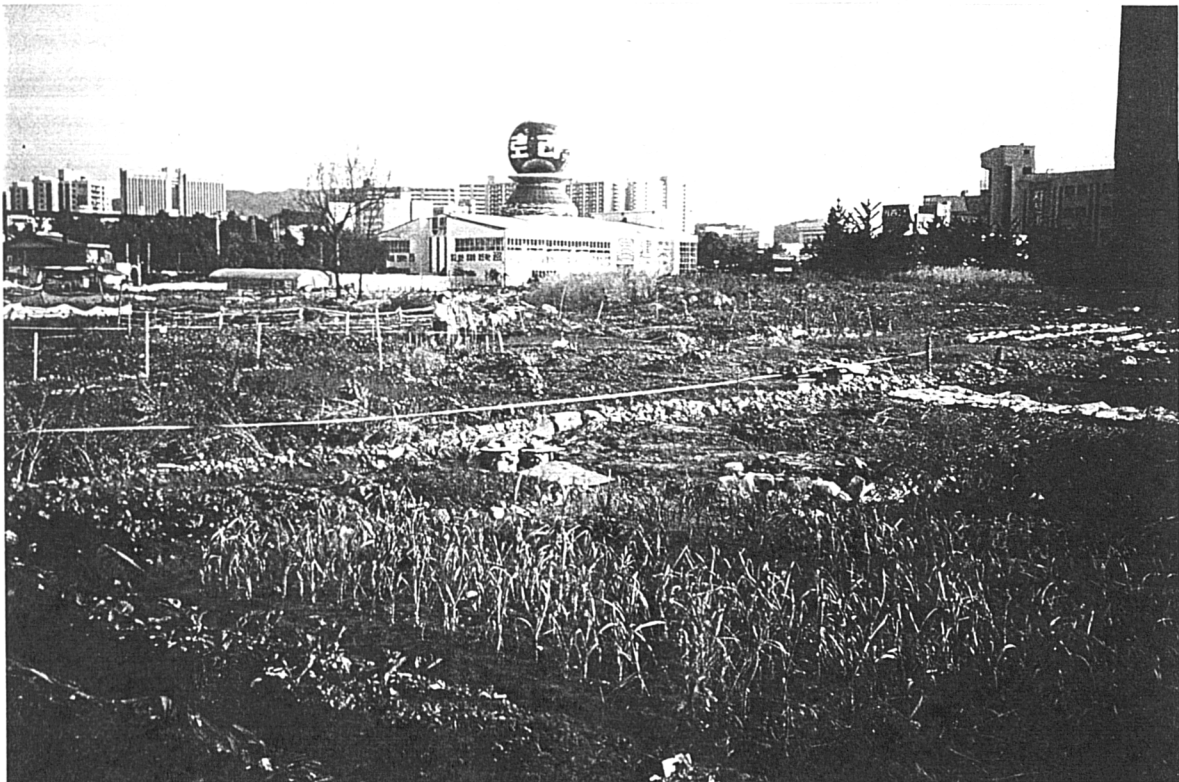


Plate 6.4 The Same Site to Plate 6.3 in 1992. After the Disrupted Golf Driving Range Construction, the Shape and even the Soil Quality of the Plot Have Changed.

Until 1962 most of the land in Seocho Ku was agricultural land. Zamwon Dong (a neighbouring administrative unit) and Banpo Dong areas had been famous for their silk-worm raising rooms during the Choseon dynasty, for which many parts of the areas were used as mulberry fields. Until the late 1960s, particularly in the area alongside the Han River, vegetable and flower growing and livestock rearing, particularly chickens and pigs, had been flourishing suburban agricultural businesses. Since the late 1960s, however, all of the areas began to change to large-scale high-rise apartment housing blocks except for some patches of vacant land here and there.

After the implementation of a Land Readjustment Project in 1968, this area experienced a new stage of development. Banpo Apartment District started to take shape when the reservoirs for flood control and the dry riverside bed of the downstream Han River began to develop after several multi-purpose dams were built upstream. One of the first apartment blocks in this district was developed by the Korea National Housing Corporation in 1974 by reclaiming the reservoirs for flood control. The case study site and surrounding areas began to be developed in 1976 by Hansin Construction Company (this company alone built apartment blocks for 11,429 households) with other companies such as Hanyang, Daerim, Kyungnam, and Usung joined to complete the present large-scale apartment district.

#### **6.3.1.2 Land Use in and around the Site**

The case site is surrounded by high-rise apartment blocks to the east, roads to the further east and west, a block of small shops to the south and a middle school to the north (see Map 6.2). This city farming site is composed of two lots for the purpose of land registration but there is no border or mark between the lots. Therefore the two lots look like one large city farming site. While the upper part, 66-14 Zamwon Dong<sup>6</sup>, was the focus of recent community protest against

a golf driving range development, the other lot is under development pressure too. Because both lots are reserved for a school, both would be developed at the same time. The summary of the land use of the case site is as follows:

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Lot number	66-2 and 66-14 Zamwon Dong, Seocho Ku
Area	66-2: 10,562.3 m <sup>2</sup> ; 66-14: 4964.8 m <sup>2</sup>
Land category	Both lots are reserved for a school building.
Ownership	66-2 lot owned by Korea Land Development Corporation; 66-14 lot owned by the city government.
Zoning	General residential zone; parking improvement district; apartment district.
Roads and traffic	A two lanes road to the east.
Land use around the site	Kyungwon Middle School to the north; Banpo Hanyang Apartment to the west; a block of small shops to the south.
Previous use	A dry field.
Duration of vacancy	For more than 15 years.
Reasons for vacancy	This site is reserved for school construction for future possible population increase.
Future development plans	At the moment there is no specific plan to build a school.
Prospects of development	Both the community and local councillors demand more schools in this area because high school classes in the community are so crowded. But the prospect of development is uncertain.

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This section has reviewed the site history and the land use of the case site. Compared with the case site of Mok Dong, this case site is in a higher income community. In terms of the duration of land vacancy and the history of city farming, this site shows some unique features characteristic of city farming. The next section examines the causal mechanism of city farming in the Banpo Dong case site.

### 6.3.2 Individual Case Analysis

Based on the social learning model discussed in Chapter 5, this section examines why city farming on the Banpo Dong site is initiated and being practised. As in the section 6.2, basic background information is summarised before details of each case are provided.

#### 6.3.2.1 Case 1: Mrs Park

Sex	Female
Age	71
Address	Banpo Hansin The 4th Apartment
Hometown	Seocheon
Residence in Seoul	14 years
Education	No schooling
Religion	Buddhism
-----	
Area	300 m <sup>2</sup>
Kinds of vegetables being cultivated	Welsh onion, lettuce, broad bellflower, pumpkin, green perilla, crown daisy, kidneybean, mung bean, red pepper, radish, chinese cabbage, potato.
Attached facilities	No
Stolen vegetables	Passing women neighbours sometimes pick up the vegetables.
Tramping damage	Yes, sometimes.
Methods of watering	Rainwater; she does not bring water from home.

At a community meeting in 1991, she was told that it should be no problem for old people to cultivate vacant land scattered around within the boundary of Banpo 3 Dong. According to her, even Dong officers encouraged her to grow some vegetables on the vacant land. However, no sooner had she started city farming in the early 1991, than her plot was dug out and the vegetables destroyed by the golf driving range construction which was proposed by the Korean Veterans Association. So for some time until the autumn in 1991 when the construction work was finally discontinued due to the community outcry, she could not cultivate there.

When her husband passed away 14 years ago, she came up to Seoul to join her first daughter who was then living here. She said that the reason why her family dissuades her from farming here is that they know their mother in her youth worked so hard in the rural area that it is now time for her to take a rest. She regularly attended a college for the elderly in west Seoul, which took about half an hour's journey by car from her home. That was her only leisure activity except for city farming.

The quality of topsoil was poor and the soil was not able to retain water long enough for the vegetables to obtain it. There were many cases of damage caused by animals and birds: rats and mice dug potatoes up and ate them, and sparrows and pigeons pecked at mung beans and kidney beans. An attempt to grow red peppers was unsuccessful.

#### 6.3.2.2 Case 2: Mr Lee

Sex	Male
Age	72
Address	Sadang Dong
Hometown	Jinpyong
Residence in Seoul	35 years
Education	Primary school the third year dropout
Religion	No
-----	
Area	150 m <sup>2</sup>
Kinds of vegetables being cultivated	Red pepper, corn, green perilla, crown daisy, bean, welsh onion, lettuce, chinese cabbage.
Attached facilities	No
Stolen vegetables	No
Trampling damage	No
Methods of watering	Rainwater or he does not water at all.

He was not living in this community but in another area far away from here, about 45 minutes away by underground train. His eldest son lived in this district, which explained his connection to this site. He obtained this plot in 1992 from a previous city farmer who was a deacon lady of a church. He was



also cultivating a vacant plot in Sadang Dong where he then lived. He said that the plot near his home is much smaller than this one. He seemed to be a sort of semi-commercial city farmer (some of his produce was for own consumption and some surplus for sale).

There was no other city farmer working on this site except for him at this time. Because 2 o'clock in the summer in South Korea is one of the hottest times of the day, nobody wanted to work here. But he was determined to do his fieldwork. It seemed hard for him to do farming work anyway. He had no particular technical problems at the time. He grew green perillas in order to eat the leaves. He noted there was no waste produced on this plot because every organic waste after harvest was used as compost; even weeds and grass clippings were added to a compost heap made at a corner of his plot.

### 6.3.2.3 Case 3: Mrs Shin

Sex	Female
Age	89
Address	Hanyang Apartment 5 Block
Hometown	Kwangcheon
Residence in Seoul	15 years
Education	Primary school dropout
Religion	Protestantism
-----	
Area	About 500 m <sup>2</sup>
Kinds of vegetables being cultivated	Corn, chinese cabbage, pumpkin, bean, crown daisy, welsh onion, kidney bean, radish, taro.
Amount of production	Yearly income from the sale of the harvested vegetables is more than a million won (about 850 pounds).
Attached facilities	No
Stolen vegetables	Yes. Sometimes, people pick up vegetables without hesitation saying "this plot is not yours anyway".
Tramping damage	Yes, particularly by the pupils of the neighbouring school.
Methods of watering	For about 10 years, she had used the tapwater of the middle school because until recently a fence separating this city farming site and the school was loose, and anybody could enter the school premises quite easily. But since 1991, she has used the water from a small reservoir on the same site, which is used for an ice skating rink in the winter.

Seeking a leisure activity, she started farming here 15 years ago when this site was still vacant as she had just moved to Seoul with her grandchildren. She was the oldest and the longest practising city farmer on the site, thus should be called a leading agent. When she moved to this district 15 years ago, this site was just vacant and the neighbouring school was not yet built. A few other elderly men and women in the community joined city farming following her example mostly in order to grow vegetables such as beans. She once occupied a third of the site of lot 66-14 where the Korean Veterans Association once tried to build a golf driving range. The then landowner, the Korea Land Development Corporation (this particular land, lot number 66-14, was registered as the city government's property in 1992), gave compensation of 200,000 to 500,000 won (about 150 to 400 pounds) to each city farmer on this site before digging the ground over. Even the landowner gave her a clock as a gift saying she had maintained this site very well for a long time.

When the project was given up due to the community protest, she resumed farming here, but the soil fertility became so degraded that vegetables did not grow very well. The soil then became so sterile that she had to use much fertiliser. Pigeon damage was also a problem particularly when buds came out so that she applied vinyl mulching to her vegetables. She even laid poison to prevent rats and mice.

According to her, once Dong officers encouraged, through the monthly community meeting (in South Korea, there is an official monthly community meeting for a group of 20 to 30 households called Bansangwhoi), the elderly in the neighbourhood to cultivate vacant land in its jurisdiction by selling some farming tools displayed in the Dong Office. According to her, there were more than 30 city farmers here. She grew vegetables for sale. This was confirmed by her remarks about her profits from the sale of her vegetables and her intense

interest as to when the site would be developed, frequently asking the researcher whether he knew at what date this would occur. However, considering the size of her plot and the variety of the vegetables she grew, this activity seemed to be no more than a leisure pursuit.

She boasted of her son being a chief director of both a primary school and a high school in Kwangcheon, her hometown. She then lived with 4 grandchildren. She attended a college for the elderly once a week. She was healthy enough to do fieldwork everyday and looked young for her age of 89.

#### 6.3.2.4 Case 4: Mr Park

Sex	Male
Age	71
Address	Hansin the 4th Apartment Block
Hometown	Jeonju
Residence in Seoul	33 years
Education	Jeonju Agricultural High School
Religion	No
-----	
Area	About 600 m <sup>2</sup>
Kinds of vegetables being cultivated	Beans, welsh onion, corn, peanut, lettuce, chinese cabbage, pumpkin, kidneybean, mung bean.
Amount of production	He does not know the exact yield because he is not interested in selling the vegetables.
Attached facilities	No
Stolen vegetables	Yes. Particularly pumpkins are picked up by the neighbours.
Tramping damage	No

When he started city farming, the whole site was occupied by mostly women city farmers. He was handed over some plots by the previous occupiers about 5 years ago in return for his help to get rid of stones strewn all over the site and to reclaim the site. The plot he then occupied was different from the plots he had been handed over 5 years ago because the failed golf driving range construction changed the whole pattern of plot occupation on this site. Anyway, city farming became his main leisure activity except for climbing.

Even if he was not the longest practising city farmer on the site, he must be the person who had the strongest influence on the city farmers on this site. When Keonyoung Company, a building company in charge of the construction of the controversial golf driving range, turned over the ground totally destroying a crop of green perillas due to be harvested the next week, he took the initiative in protesting against the unfair behaviour by visiting the company's office himself. He argued at the time with some members of the company staff as to the compensation due for five mals of sesame given the price of one mal was 150,000 won (about 125 pounds). As a result, he got compensation of 300,000 won (about 250 pounds) .

Now that the construction was discontinued, he as well as other previous occupiers had regained their rights to cultivate here. However, the farming condition of this site was not like before. Firstly, due to the disrupted work, the morphology of the site had been changed with the level of the southern part of the site becoming a bit higher and the level of his plot a bit lower. This had caused a drainage problem for his plot. Secondly, every farmer here was then worried about a sudden discontinuation of their farming opportunity by an abrupt development. What most of the city farmers wanted to know was when the site would be developed. As far as he knew, one of the reasons for the delay of school building was that with a budget of a million won per pyong (about 250 pounds per m<sup>2</sup>), the Seoul Board of Education could not afford to buy the land worth 10 million won per pyong (about 2,500 pounds per m<sup>2</sup>). Anyway the conflict over the site development attracted the attention of the mass media. Articles about this issue appeared in the newspapers, and the conflict was shown on TV news programmes, and politicians and Ku councillors came out to the site to join the protest.

Neighbouring city farmers, particularly women farmers asked him about farming techniques such as vinyl mulching. He gave a piece of information about a method of watering saying that one of his friends living in Daejon (a city in the middle of South Korea) watered his vegetables using a hose connected to his home tapwater. He said that if that had been possible here, cucumbers or tomatoes could have been grown on this site. The reason for selecting those vegetables above was that the vegetables were believed to grow well with small amounts of fertiliser.

#### 6.3.2.5 Case 5: Mrs Kim

Sex	Female
Age	66
Address	Banpo Hansin The 9th Apartment
Hometown	Yangpyong
Residence in Seoul	60 years
Education	Primary school
Religion	No
-----	
Area	100 m <sup>2</sup>
Kinds of vegetables being cultivated	Pumpkin, welsh onion, peanut, chard, chinese date, lettuce, red pepper.
Attached facilities	Because her plot is just beside a small lane cut across the whole site, she fenced the plot to prevent her vegetables from being stolen.
Stolen vegetables	Yes, sometimes.
Trampling damage	Yes, sometimes by the pupils of the neighbouring middle school.
Methods of watering	Water from the small temporary reservoir used for an open-door ice skating rink in the winter.

Finding the plot was vacant when she passed the plot along a small lane which cut across this site about 4 years ago, she started city farming as a leisure activity. She said there were about 50 city farmers here on this site. When the researcher interviewed her, her husband was beside her. He looked very frail. He noted that whenever he came out here, he felt as if he had been standing in a rural area. According to him, historically this district had been famous for its silkworm-raising rooms before changing to "dakang" (pickled radish)

manufacturing factories which in turn were superseded by radish and vegetable fields.

She moved here 10 years ago. She retired from her job several years ago and she then lived on her retirement allowance. After the interview, she went to Mrs Shin, whom the researcher interviewed before and who was the oldest city farmer on the site, asking something about technical problems of cultivation. Mrs Shin was sitting just beside the small lane in order to sell bunches of crown daisies and lettuces. She noticed the researcher, and the researcher bought the remaining unsold vegetables, paying 2,000 won (about 1.5 pounds).

She had much difficulty in getting rid of gravel on the plot when she started farming. In the winter, her plot was to be left vacant for a short while. Otherwise she came out weekdays at about 5 o'clock every morning, working here until 8 o'clock when she went back home to see her son go to work. She also worked at the plot every evening and for a longer time during the weekend.

### **6.3.3 Causal Analysis**

Based on the social learning model developed in Chapter 5, a causal analysis is here conducted. Actors and a leading agent, and their relationships with each other are important aspects in the causal analysis of city farming. Therefore the identification of city farmers as actors and a leading agent is a prerequisite to understand what city farming really means. The other key concepts are reality learning and practice learning. In the same way as the causal analysis of the Mok Dong case site, this section is divided into four: actor, reality learning, practice learning and causal analysis in general.

### 6.3.3.1 Actor

All the interviewees are over 65. Their hometowns are outside of Seoul. Although they all have rural backgrounds, some of them did not have farming experience themselves. On this site, Mrs Shin, the oldest city farmer on this site plays a role of leading agent. Most of the other city farmers know her, and they learn much about farming techniques from her. On the other hand, there is another active actor on this site, Mr Park. Having graduated from an agricultural high school, he knows much about farming techniques. When the dispute over the golf driving range development happened, he took the initiative to get compensation not only for himself but also for the other city farmers on the site.

The interviewees occupy comparatively large plots of vacant land ranging from 100m<sup>2</sup> to 600m<sup>2</sup>. The career in city farming is diverse: from a 15 year veteran to a first year beginner. Except for Mrs Shin, the leading agent, nobody is interested in selling their produce.

### 6.3.3.2 Reality Learning

With no other leisure activities available to them, the interviewees naturally took up city farming after they came across patches of weed strewn vacant land. With tacit permission from the Dong Office and sometimes some encouragement through the monthly community meetings, they exchange information about the situation surrounding the city farming site. Before the recent outbreak of the development conflict, the site was well managed and neatly controlled, serving as a community garden. A warning post prohibiting farming here for an imminent land development, seen at the time of the pilot study in 1990, has now disappeared. Of course, the vacant site has not been developed as planned, and the Korean Veterans Association proposed to use the site as a temporary golf driving range. But the project had to be abandoned

due to continuous community protests (for details, see Chapter 7, Section 7.3.4). Through the conflict over the site development, the city farmers have learnt that the development of this site is not so easy and, therefore, for the time being they can keep occupying their own plots.

The case study site became vacant in the mid-1970s, which fits in the Rapid Growth stage (1963- now) as suggested in Chapter 5. The previous agricultural land use was discontinued because of a large-scale housing development scheme. This site remains vacant since it is reserved for a school use. The case site and its surrounding areas is a typical example of the Land Readjustment Projects implemented in Seoul in terms of its history and scale. Although there is a growing demand for establishing middle to high schools in this area, the Seoul Board of Education cannot afford to buy the expensive land which has now gone up beyond the Board's financial capacity. Therefore, for the time being, the vacant site remains undeveloped.

#### **6.3.3.3 Practice Learning**

The size of plots is comparatively large ranging 100 m<sup>2</sup> to 600 m<sup>2</sup>. As in the case of Mok Dong, there are variety of type of vegetables. With the help of a leading agent and an active city farmer, city farmers on this site learn how to grow vegetables through trial and error. Because this site is located beside a commercial area with many passing pedestrians coming and going, and near to a middle school, there are many cases of stolen vegetables before harvest and tramping damage. One of the most difficult things in cultivation is to water vegetables. Luckily, however, an open-door ice-skating rink was built some years ago, and in the summer, that rink serves as a temporary reservoir. In the dry season like spring, of course, they can bring buckets of water from their homes.



#### **6.3.3.4 Causal Analysis**

There is no direct relation between city farmers and local government but Banpo 3 Dong Office in fact helps promote the city farming site by providing tools and sometimes by encouraging the elderly in the community to cultivate the vacant site. While, as the analysis of the interviews with Ku officers in the next chapter will show, Seocho Ku local authority is very uncomfortable with the existence of city farming and they try to levy fines for the illegal occupation of vacant land, the Dong Office under the control of Seocho Ku encourages community members to grow vegetables on vacant plots. That clearly shows how the Ku administration is remote from the community level everyday life.

In conclusion, led by a leading agent and an active city farmer who both had experience of farming, elderly members of the community, who did not have enough leisure pursuits, started to colonise vacant land realising that this activity was permitted, unofficially at least, by the Dong Office. Although there was some communication between city farmers and a landowner during the golf driving range development conflict, and many contacts between Dong officers and city farmers through the monthly community meetings, generally speaking, there have been no close relationships among city farmers, the local authority, and the landowner of this site.

### **6.4 CASE STUDY OF THE SANGKYE DONG SITE**

The Sangkye Dong case site is the last of the three case study sites for the research. It is also the smallest and the newest of the three. However, the existence of this city farming site is very important for this community because a nearby large-scale city farming site was recently closed due to a bus terminal development and therefore, the interest in this site has increased. This section

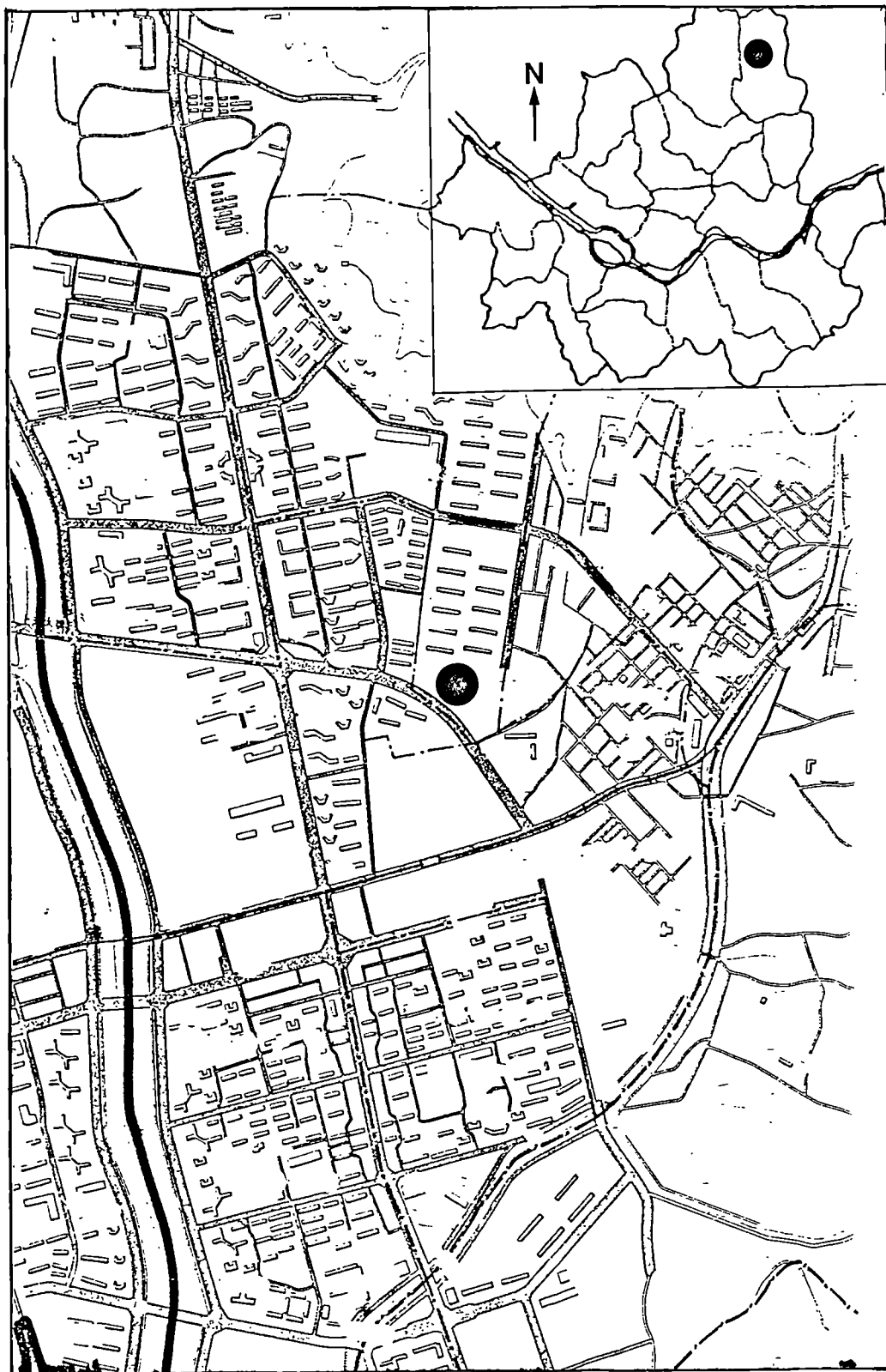
consists of three parts: site description, individual case analysis, and causal analysis.

## **6.4.1 Description of the Sangkye Dong Case Site**

### **6.4.1.1 Site History**

Throughout the history of this area, there were many occurrences of secession and annexation before the area was finally incorporated into Seongbuk Ku of Seoul in 1963. Nowon Ku, where the case site is located (see Map 6.3 and Plates 6.5 and 6.6), was newly established as a Ku district in 1988 after being separated from Dobong Ku which had been divided from Seongbuk Ku in 1973.

It was not until 1988 that a district called "Madeul Plain", whose area was about 958.8 hectares, started to be developed as large-scale apartment housing blocks. When apartment buildings were being constructed, there was no sufficient infrastructure such as drinking water, sewage and transport systems, education facilities, cultural centres, hospitals, and markets except for apartment buildings on the plain. Although many facilities have been provided thereafter, hospitals, agricultural products markets, bus terminals, and waste treatment facilities are all still needed. In particular the delay to the construction of such facilities as bus terminals and waste disposal facilities are caused by public protests by the community who worry about the negative effects of such facilities on their property value, even though they acknowledge the necessity of the facilities. As will be discussed later on, a site adjacent to the case site is a good example of this problem. A hasty housing development, in these newly developed large-scale apartment blocks, by the city government without sufficient provision of public facilities is causing continual public complaints.



Map 6.3 The Case Site of Sangkye Dong



Plate 6.5 The Sangkye Dong City Farming Site in 1990.



Plate 6.6 The Same Site to Plate 6.5 in 1992. The Layout of the Site is Unchanged, but More Crowded than Before.

This area has a sad history of urban development in Seoul: the history of forceful eviction<sup>7</sup> of squatters from the illegal settlements scattered around the area. One of the settlements, just beside Sangkye subway station, was developed in 1959 and 1960 as a settlement provided by the city government, under a resettlement scheme, for the evicted squatters mainly from the city centre of Seoul. But a development and speculation boom began to sweep the area following the start of the Seoul subway, the fourth line construction, which was part of the development associated with the preparations for the Seoul Olympics. In 1985, at last the city government issued a public notice indicating that this area was to be included in a Redevelopment Project District for a new town with 57,000 apartment houses.

#### 6.4.1.2 Land Use in and around the Site

This site is just beside a small-scale community park in a residential area. Although the area where the site is located has a typical history of urban redevelopment and squatter eviction, this particular site is a normal small-scale vacant site such as can be easily seen in many other parts of Seoul. The summary of the land use of the case site is as follows:

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Lot number	686-1 Sangkye Dong, Nowon Ku.
Area	1,280 m <sup>2</sup>
Land category	Religious use
Ownership	The Korea National Housing Corporation
Zoning	General residential zone, parking improvement district.
Roads and traffic	In front of the site is a 6 lanes road without any bus route.

Land use around the site	Beside this site, there is a park with children's playground and small woods. Back and left sides of the site are apartment blocks.
Previous use	This site was originally a small hill, and finally decided as an exchange land after a Land Readjustment Project. About 4 years ago, a part of the hill was flattened to be the present form of building lot. While the neighbouring lots were developed as a post office, apartment houses and a public park, this site was reserved for a religious use as an exchange land given to the Korea National Housing Corporation.
Duration of vacancy	Before the 4th December 1985 when the Land Readjustment Project in the area was publicly noticed, this site was a part of hill. After that, a part of the hill was made flat to be a housing lot by the project. So it is reasonable to say that the site has been vacant since 1986. But, as the interviewees mention, the site became a city farming site in 1988.
Reasons for vacancy	This site was designated for religious use after the Land Readjustment Project. Due to the irregular shape and the small size, it is not appropriate to be used as a housing lot. Even if there had always been rumours of an imminent church building, no work started yet.
Future development plans	Building a church.
Prospects of development	No development is imminent.

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### 6.4.2 Individual Case Analysis

Based on the social learning model discussed in Chapter 5, this section examines why the city farming activity on the Sangkye Dong site is initiated and being practised. Following the framework of the previous analyses of case sites, this section provides details of five individual cases. At the start of each case analysis, basic information about an actor and cultivation is briefly summed up.

**6.4.2.1 Case 1: Mr Kwon**

Sex	Male
Age	68
Address	Korea National Housing Corporation Apt 9 Block
Hometown	Andong
Education	No schooling
Religion	Buddhism
-----	
Area	80 m <sup>2</sup>
Kinds of vegetables being cultivated	Lettuce, taro, chinese cabbage, pumpkin, welsh onion.
Attached facilities	Fences and crosspoles for support
Stolen vegetables	No
Trampling damage	No
Methods of watering	Tapwater from home.

In 1988, he, together with his wife, started cultivation on this site. Before then, there was a makeshift tent used for a temporary church on the site. When a pastor informed them of an imminent church building, in order to continue farming they moved to a nearby vacant site designated for school use. Realising there was something wrong with the plan, they moved back to the present site to resume farming.

He is a leading agent of this city farming site. He is knowledgeable about the history of this site. He had three more farming plots at other sites. He had once cultivated a plot on the large-scale vacant site opposite to the case site. Reserved for a bus terminal, the large-scale vacant site (about 10,000 m<sup>2</sup>) was finally given planning permission for the building of a bus terminal by the Ku authority despite a serious community protest. Meanwhile, the site was reserved for religious use. Construction work to build a church was supposed to be started in April 1992, but delayed allegedly until July, which was still not confirmed. He mentioned the reason for the delay was that the local authority would not give planning permission to control the recently overheated building boom mainly due to the so-called 2 million housing development project.

He was supposed to move to another place, for which he had already prepared a new city farming plot of his own on a riverbed near his future home in north Seoul. According to him, there was a case where a landowner encouraged neighbours to cultivate a site of vacant land of his own in order to evade paying the tax on excessive profits from land. As far as the practical aspect of city farming was concerned, the quality of topsoil was low and drainage was bad too. Apart from city farming, he spent most of his time by walking to a mineral water spring of the nearby hill.

#### 6.4.2.2 Case 2: Mr Hong

Sex	Male
Age	80
Address	Korea National Housing Corporation Apt 9 Block
Hometown	Seoul
Residence in Seoul	37 years
Education	Middle school
Religion	Buddhism
-----	
Area	30 m <sup>2</sup>
Kinds of vegetables being cultivated	Lettuce, chinese cabbage, pumpkin.
Attached facilities	Fence and frames to support vegetables.
Stolen vegetables	No
Trampling damage	No
Methods of watering	Tapwater from home.

He had lived in Japan before moving back to Seoul in 1955. He moved into this place three years ago when he started city farming. He once worked with a electricity generation company. Before he moved into the present place, he had lived in Ocksoo Dong where he made a small vacant plot as a rose garden. He anticipated that he would move out to an apartment house beside the Han River the next year. He lives with his wife who is not able to help him cultivate because she is busy taking care of her grandchildren.



He mistakenly believed, together with most of the other city farmers here, that the land was privately owned. But that was not true. According to the land register, this site was private land until December 1985 when the ownership was transferred to the Korea National Housing Corporation. As recently as June 1992, the land was still owned by the Corporation. Another misunderstanding was about the meaning of land classification. According to the cadastre, this site was classified for religious use. As the land classification of this site was changed from the previous use of agricultural land to the present religious use, it could also be changed to another use. This means, contrary to the city farmers' belief, that even if there was a plan to build a church on this site, this land had nothing to do with a particular church construction. It could be a temple, a Confucian shrine or whatever related to any religious activity. In short, the land was categorised for general religious use, which did not dictate that a church should be built there.

#### 6.4.2.3 Case 3: Mr Yoo

Sex	Male
Age	72
Address	Korea National Housing Corporation Apt 9 Block
Hometown	Jeonju
Residence in Seoul	10 years
Education	Primary school
Religion	Nothing
-----	
Area	70 m <sup>2</sup>
Kinds of vegetables being cultivated	Lettuce, radish, chinese cabbage, pumpkin, crown daisy.
Attached facilities	No
Methods of watering	The rainwater gathered in a small pond made by him. Before then he used the tapwater from the nearby school. But he stopped using the school water when asked to pay money for it.

When he started city farming in 1989, this part of the case site was weed strewn. He himself weeded the plot so that he could cultivate his plot as a leisure pursuit and for exercise. He came up to Seoul from his hometown when his son

got a job in Seoul 10 years ago. His wife wanted to join the cultivation but he dissuaded her.

He said that now that this farming site was well managed, nobody dared to dump rubbish onto the site. He noted that at the time there were more than 20 farmers there with more people willing to join. He had no financial difficulties because enough pocket money was given to him by his son regularly and some bags of rice produced on the paddy field he owned in the countryside were sent to him every year.

He came out nearly everyday. He pointed out that when a vacant site reserved for a school building but used as a city farming site was finally developed, a developer compensated the city farmers there for the loss of their vegetables. He also said that city farming was believed by some landowners to be an effective way of evading taxes on their vacant land. However, there was no evidence to support this.

#### 6.4.2.4 Case 4: Mrs Moon

Sex	Female
Age	70
Address	Korea National Housing Corporation Apt 8 Block
Hometown	Cholwon (Kangwon Province)
Residence in Seoul	10 years
Education	Primary school drop out
Religion	Catholicism
-----	
Area	10 m <sup>2</sup>
Kinds of vegetables being cultivated	Lettuce, welsh onion, mallow, crown daisy.
Attached facilities	No
Stolen vegetables	No
Tramping damage	No
Methods of watering	Tapwater from home.

Her plot was previously cultivated by a woman who transferred that plot to her after giving it up due to her illness the previous year. She spent most of her time chatting with her friends.

She knew all the farmers there because they were all neighbours. Some other city farmers there sometimes sold the harvested vegetables and there were people who came there to buy some vegetables. She knew that there was an unidentified rumour that that July a church would be built there. Usually fertilisers were bought and distributed by one of the active city farmers.

#### 6.4.2.5 Case 5: Mr Shin

Sex	Male
Age	47
Address	Boram apartment house
Hometown	Keochang (Kyungnam Province)
Residence in Seoul	23 years
Income level	800,000 won a month
Education	No schooling
Religion	No
-----	
Area	15 m <sup>2</sup>
Kinds of vegetables being cultivated	Lettuce, chinese cabbage, welsh onion, cucumber.
Attached facilities	No
Stolen vegetables	No
Trampling damage	Yes. Sometimes in the summer when children try to catch insects such as butterflies and dragonflies.
Methods of watering	Tapwater from home.

Originally his wife started farming on the large-scale vacant site on the opposite side of this site 4 years ago. When the present site was recognised as available for city farming, many neighbours started to divide the site, one of whom was his wife. For some time, she had cultivated two plots on two sites before giving up the plot opposite because that was a bit far away from their home and therefore it was hard to carry buckets of water. He and his wife had concentrated on this plot for three years.

He was a taxi driver. He had become a main farmer on his plot because his wife, a co-worker here, was sick at present. He knew that at this site there were some city farmers who sold the harvested vegetables. He boasted of the lettuces he was growing, which were a special rare variety. The taste is very good, he said. In 1991, he harvested some sweet potatoes and consumed even the stems of the potatoes.

### **6.4.3 Causal Analysis**

Based on the social learning model developed in Chapter 5, a causal analysis for this site is conducted. Because city farming is a kind of self-help social activity at the community level, a social learning model can be a useful theory to explain it. The case study analyses are repeated in order to show that there is a certain mechanism which can be applied across the case sites. It follows the replication logic suggested by Yin (1989). As in the previous case site analyses, this section is divided into four: actor, reality learning, practice learning and general causal analysis.

#### **6.4.3.1 Actor**

More than 20 city farmers crowd onto this small-scale farming site. Some of the city farmers recently moved to this site from the city farming site on the opposite side, which was developed as a bus terminal. Each farmer occupies a small patch of land.

This case site is located in a low to middle income residential area. All of the interviewees are over 65 except for Mr Shin. However, they are all healthy enough to come out everyday to take care of their vegetable plots. The role of leading agent on this site is significant. Whenever the researcher approached a city farmer to ask something about technical questions, they all suggested that the researcher meet the leading agent, Mr Kwon. Mr Kwon initiated city

farming here. He knows everything about the site history. Beside his own plot, there is a wooden bed which serves as a meeting place for the other city farmers who ask him about farming problems or just come to chat.

#### **6.4.3.2 Reality Learning**

Although Sangkye 10 Dong Office is within a stone's throw of the city farming site, Dong officers do not pay any attention to this matter. They implicitly allow city farmers to occupy the vacant site. A Dong officer whom the researcher interviewed ignores a city farming site beside the Boram apartment house and some greenhouses beside the Korea National Housing Corporation Apartment 7 Block simply because they are not within his jurisdiction. The Dong officer reasons that while it is understandable that the elderly who live in this middle to lower income residential area with more or less 10 pyong (33 m<sup>2</sup>) wide apartment houses (by South Korean standards, it is one of the minimum sizes of apartment house) wish to cultivate vacant land in order to supplement their low incomes, citizens living in richer residential areas would not cultivate vacant land even if there were a lot of vacant sites in their neighbourhoods. This is not true - as shown in the cases of the Mok Dong and Banpo Dong sites.

The Sangkye Dong site became vacant in the early 1980s. This site was formerly a part of agricultural land. It is now available for urban land use and in fact, development is intended but implementation is delayed because development is deferred by the government policy of not permitting non-urgent developments.

The elderly who had no other leisure pursuits began to colonise small patches of vacant land after realising that the Dong Office as well as the Ku local authority had ignored this site. Helped by the advice of a leading agent, city farmers here have learnt that farming techniques are not so difficult to master.

The discontinuation of the large-scale city farming site (about 10,000m<sup>2</sup>) opposite to this site in 1991 increased the importance and popularity of this site. Through the practice and reality learning process guided by the leading agent, this city farming site has taken its present shape. The only problem is this site could be developed at any time, and they would then lose one of their best leisure opportunities.

#### 6.4.3.3 Practice Learning

This city farming site is the smallest of the three case sites. The plot size each city farmer occupies is quite small from the largest of 80 m<sup>2</sup> to the smallest of 10 m<sup>2</sup>. This site looks like a small garden. The compact size of this site and the existence of a leading agent enable the city farmers here to easily learn practical aspects of farming. There are a variety of vegetables grown. Chinese cabbage and lettuce are the most popular items *because they are the most popular side dishes in South Korea and they do not need large amounts of fertiliser and chemicals*. One of the most difficult things is to water vegetables. Most of the interviewees use tapwater from their homes except Mr Yoo who made his own tiny pond where rainwater can be stored. Beginners get information about the proper fertilisers and chemicals for certain vegetables from either the leading agent or other active city farmers on the site.

#### 6.4.3.4 Causal Analysis

As for the necessary relations found in city farming on the Sangkye Dong case site, the relationship between vacant land and city farmers is clear. However, the relationship between Ku local government and city farmers is not identifiable. The Ku local government simply turns a blind eye to the existence of vacant land and the practice of city farming.

As far as vacant land is concerned, the case study site has become vacant since 1986. After a Land Readjustment Project, the development of the land is

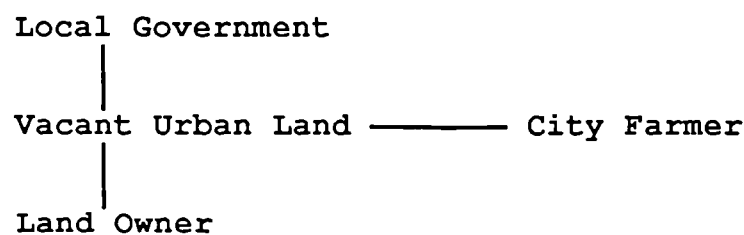
delayed because Nowon Ku local authority which is in charge of any building construction does not allow unnecessary developments in recent years. The reason for that guideline is that the recent housing boom caused by the central government's 2 million housing development project has precipitated shortages of construction workers and building materials, and the increase of wages for the construction workers.

City farmers have relations with their families and neighbouring city farmers and also with the community neighbours and relatives. Realising the facts that a small-scale, neglected site of vacant land lies idle near to their homes and seeing some of their neighbours occupy a parcel of land to grow vegetables and nobody bothering to stop them, elderly residents of the community start to cultivate the vacant land. The role of leading agent on the Sangkye Dong case site is significant. Whenever they are asked questions about some technical aspects of city farming, most of the interviewees refer to the leading agent. In short, if there is a site of vacant land near to a community, and if there are a considerable number of old people in the community who do not have enough leisure opportunities, and if local government neglects this issue, then there is a tendency for the elderly to colonise the neglected land.

The city farmers' motivation for taking up cultivation on this site is initially economic. Because this site is located in a low income residential area, vegetables produced on their plots are surely a supplement to their incomes. However, purposes of city farming in terms of enjoying the activity as a pastime and keeping up health are as equally important as economic benefits. Through the practice and reality learning process, city farmers on this site are creating the present form of city farming site. In that process, Sangkye 10 Dong Office and Nowon Ku local authority have few relations with the city farmers although the Dong Office tacitly permits city farming.

## 6.5 GENERAL ANALYSIS OF ALL THE CASES

This section analyses the differences and similarities across the case study sites and suggests a general causal mechanism and a structure of city farming on the case study sites. First of all, excluding some contingent relations found in city farming all across the case sites, a structure which is composed of necessary relations can be described as follows:



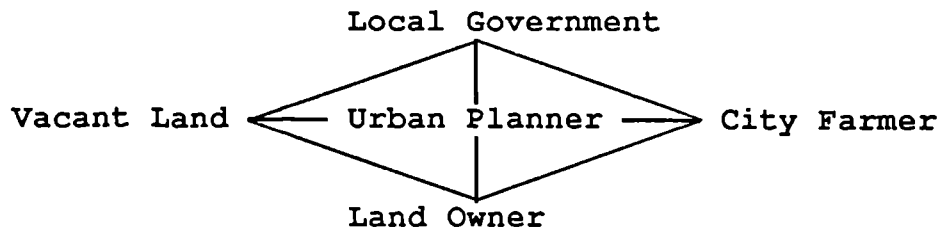
**Figure 6.1 The Structure of City Farming**

There are no direct relations between city farmers and local authorities, and between city farmers and landowners. Sometimes, local authorities themselves are landowners in the cases of the Mok Dong and Banpo Dong sites, for example. Under certain circumstances, local authorities or landowners neglect the existence of city farmers on the vacant sites owned by them even if they know it is illegal. In many cases, it seems to be desirable for city farmers to cultivate vacant sites because local authorities or landowners do not have to spend time and money to maintain the vacant sites pending development.

The simple structure shows that city farming sites are a locus of negligence and marginalisation. But an ideal structure must look like Figure 6.2. Here planners supported by both local authorities and landowners can give expertise for an orderly management of vacant land. In this ideal structure, local authorities will



positively support city farmers admitting that it is a beneficial way of using a scarce resource while land owners will appreciate the city farmers' effort to manage the neglected space until they decide to develop the sites according to their proposed plans.



**Figure 6.2 The Ideal Structure of City Farming**

Even if a leading agent can play a significant role in creating and managing a city farming site, without proper knowledge about property relations, urban ecology and the legal and land use planning systems, his or her role as a manager of a city farming site may be inefficient and limited in many aspects. At present, there is evidence that many city farmers have difficulties in cultivating plots that are on poor ground, badly located, have no adequate water supply, are unfenced, and under threat of development with the loss of many years' effort. Professional planners who acknowledge the value of community initiative, equipped with sufficient knowledge of urban ecology and the complex legal and planning systems, for example, can help community members to make vacant land a lively space.

Before analysing the causal mechanism of city farming, the existence of vacant land as a precondition for city farming must be explained. All the case study sites became vacant in the Rapid Growth stage (1963- now) as suggested in

Chapter 5: the Mok Dong site in the early 1980s; the Banpo Dong site in the middle of 1970s; the Sangkye Dong site in the late 1980s. The reasons for the land vacancy of the Mok Dong site can be explained in three ways: firstly, due to a redevelopment scheme; secondly, therefore it was not allowed to reside in the squatter settlement or cultivate the agricultural land there; and finally, land is available but not in demand due to high land prices. In the Banpo Dong site, agriculture was not allowed because of a large-scale housing development project, and the developed land still remains as a reserved site for school use. The Sangkye Dong site is similar to the Banpo Dong site, but the site was not agricultural land. The land is now available for development, but due mainly to the local government policy of not permitting unnecessary developments these days, the development is delayed.

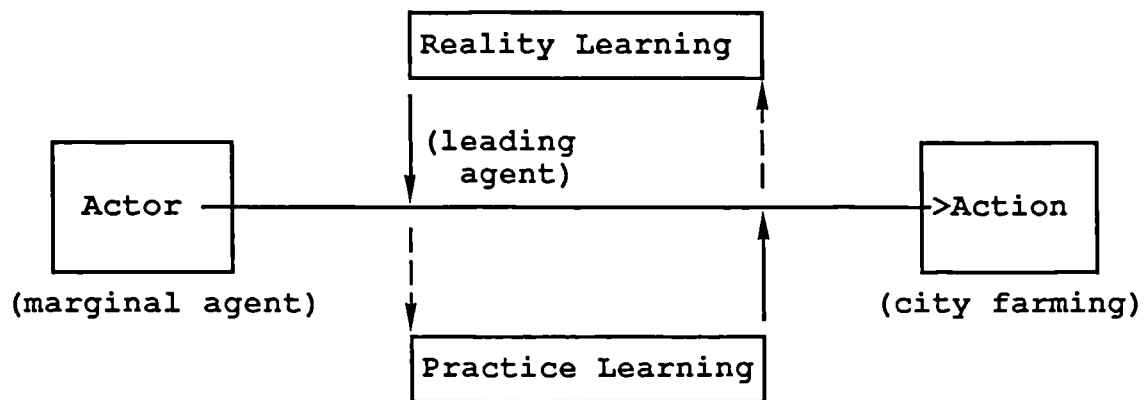
In terms of land development methods, each case site is related to a unique method. The Mok Dong site became the subject of the first implementation of Public Management System as a means of urban redevelopment scheme. The Banpo Dong site was a symbol of Land Readjustment Project in terms of its enormous scale. The Sangkye Dong site and its surrounding areas were developed by the method of Partnership Redevelopment understood as a new type of Land Readjustment Project. The common thing shared by all the land development and redevelopment methods is that they were introduced only in pursuit of economic efficiency. They presuppose that land prices would rise in the future and it could have been impossible for the whole schemes to proceed without the price increases. Therefore the vacant sites are, in short, unexpected consequences of the land development methods mentioned above with further negligence of the sites by the city and Ku government.

As far as the causal mechanism of city farming is concerned, the contents of learning in the development of city farming can be summarised as follows:

- 1) There are not enough opportunities of leisure and entertainment for the elderly even though the elderly have enough time.
- 2) To leave vacant land idle is undesirable.
- 3) Local authorities as well as landowners ignore the existence of city farmers who occupy vacant land.
- 4) Farming skills are not so difficult to learn.
- 5) With vegetable prices being so high, to cultivate vegetables is attractive in economic terms.
- 6) Led by leading agents and in discussion with neighbouring city farmers, all the participants are learning more knowledge about the practical aspects of city farming such as how to buy seeds and tools, how to grow certain vegetables and so on.

Although the role of leading agent in the case of Mok Dong was unclear, in the cases of the Banpo Dong and Sangkye Dong sites, the role was significant. The leading agents play the role of professional experts. This implies the possibility of shifting a certain area of planning, in its limited sense, from experts to citizens to make a community environment as diverse and livable as possible. A city farmer working a vacant site in a squatter settlement helps support the livelihood of his or her family. But a city farming activity engaged in by an elderly man or woman in a middle to upper income community must be considered as a leisure activity with some rare cases of half work, half leisure. Under the recent changes of socio-economic conditions such as farming as a leisure activity and a trend towards an ageing society, the issues surrounding city farming must be understood as a mirror of the changing society at least in Seoul, South Korea.

In conclusion, as shown in Figure 6.3, city farmers as marginalised agents have developed city farming through the social learning process where originally unintended consequences, unacknowledged conditions, unconscious motivation and tacit skills all are intertwined with subsequent realisation of other elements at every step of the process. In short, the city farmers on the case sites are marginalised people, marginalised from the society, from the economic system, even from the family.



**Figure 6.3 Causal Mechanism of City Farming**

The mechanisms surrounding the use of vacant land can be shown in more detail in Figure 6.4.

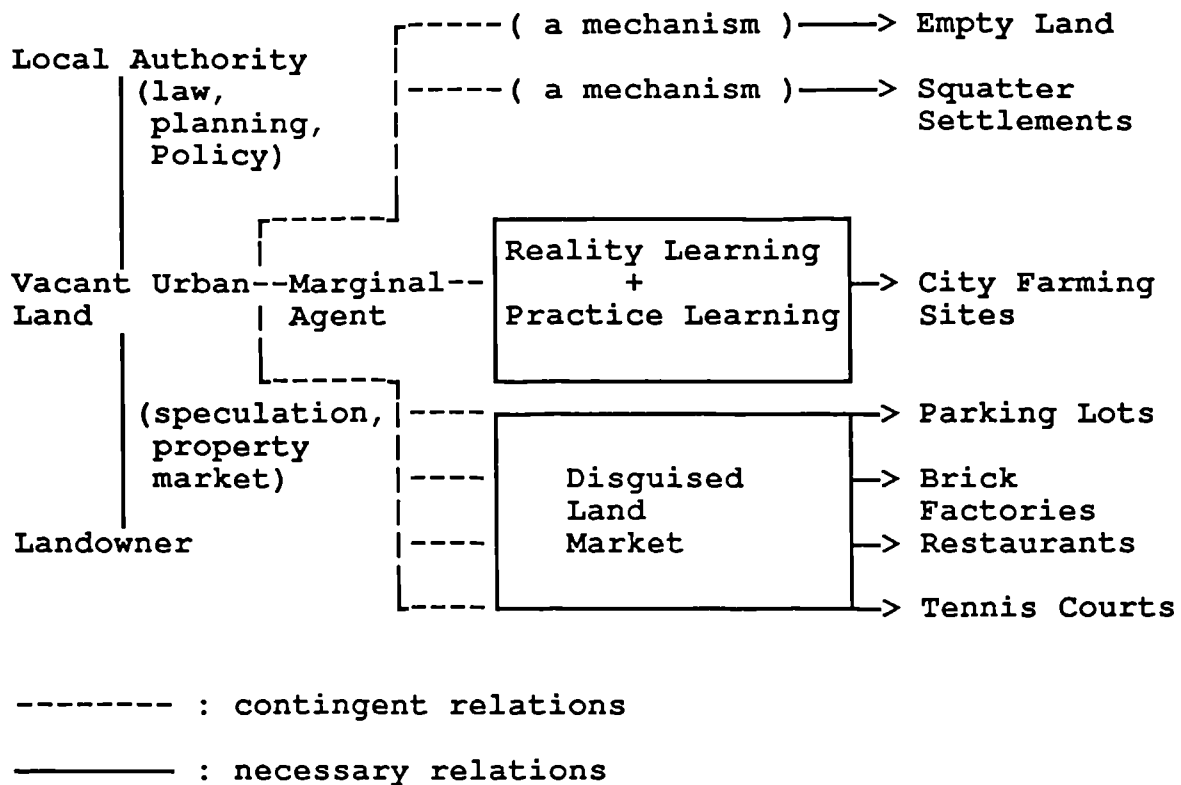


Figure 6.4 Mechanisms of the Uses of Vacant Land

At present, city farming in Seoul seems to be a symptom of the ill-managed and uncontrolled use of urban land. Under ideal circumstances, the sites that city farmers colonise and occupy should, instead, be developed. As the land use system in Seoul is not working properly, there has occurred a considerable amount of vacant land which is thereafter either used, for example, as squatter settlements or as temporary car parks, or otherwise simply left idle. The fact that land is not used properly implicates that there exist some intervening mechanisms. Of many possible mechanisms, the thesis has suggested that a social learning process is working in the occurrence of a city farming site.

## 6.6 CONCLUSION

City farming in Seoul may be simply a result of local government's mismanagement of neglected space produced in the process of rapid urban sprawl. The highly urbanised areas of Mok Dong and Banpo Dong in the case studies were quality agricultural land twenty or thirty years ago. Such a rapid change of land use implies that sooner or later the case sites would be developed and the city farming sites would disappear.

As far as the causal mechanism of vacant land in Seoul is concerned, it can be said that policy makers overlooked the side effects of a rapid urban expansion by boundary changes and annexation, and by the Land Readjustment Projects, one of the most economically efficient land development methods ever implemented in South Korea. If only economic aspects of land development are considered, with the side effects being continuously ignored, then there will be no solutions to be found with the only results being agony and trouble for both the present and future generations. During the rapid urban growth, the city government has ignored the quality of citizen's life. As far as city farming is concerned, it can be said that in certain situations, the selfish personal motivation found in city farming may have good social consequences, yet good political intentions like Land Readjustment Project may have bad social consequences such as land vacancy and soaring land prices and land speculation.

This chapter has tried to analyse the causal mechanism of city farming based on the social learning model developed in Chapter 5. The causal mechanism of city farming which has been explained in this chapter can be summarised as follows: if there is a site of vacant land near to a community, and if there are a considerable number of old people in the community who do not have enough

leisure opportunities, and if local government neglects this issue, then there is a tendency for the elderly to colonise the neglected site. In short, through the process of reality and practice learning and led by a leading agent and sometimes supported by active city farmers, a member of the marginalised group of the society tends to take up city farming. The next chapter will examine the second hypothesis that city farming conforms to the conditions of sustainable urban development.

## Notes

- 1 This district is usually called as a New Town in Town for its enormous scale of development.
- 2 There are many criticisms too: for example, the city government is criticised allegedly as a land speculator; purchasing the site with 70,000 won per pyong (18 £/m<sup>2</sup>) compulsorily and investing additional 340,000 won per pyong (86 £/m<sup>2</sup>) for building cost, the city government sold the apartments for 1.34 million won per pyong (338 £/m<sup>2</sup>) getting total profit of 1 trillion won (0.8 billion £). See Cho, Sang-Ki. 1988. "Cold-hearted! The urban poverty policy of the fifth Republic," *Monthly Kyunghyang*, June, pp 122-39.
- 3 The whole stories are well documented in an epic novel "Aunt Mok Dong" by Dong-Chul Lee. See Lee D.C. (1985).
- 4 Most of the urban redevelopment projects in the late 1980s in Seoul followed this method: firstly, forming a corporation, the landowners on a site become the project proprietor; a private construction company, then, joins as a participatory member of the corporation to build the apartment houses with its money; finally, as a compensation for the redevelopment the landowners are given the right to occupy the new apartment houses and the company sells the remained portion of the apartment houses in the property market.
- 5 In 1990, three lots were sold. The details are: a building lot of 900.3 m<sup>2</sup> for bank use (lot number 907-7); a lot of 1,442.9 m<sup>2</sup> for general commercial use (lot number 907-4); a lot of 779.9 m<sup>2</sup> for general commercial use (lot number 907-13). In 1991, two more lots were sold: a lot of 899.9 m<sup>2</sup> for general commercial use (lot number 907-6); a lot of 1,500.2 m<sup>2</sup> for general commercial use (lot number 907-11) (Mokdong Apart News 10.12.1990 and 11.5.1991).
- 6 As mentioned in Chapter 4, there are two kinds of Dong in South Korea: administrative Dong and legal Dong. The site is Zamwon Dong in terms of legal Dong while it is under the administrative control of Banpo 3 Dong. Because this part of Seoul is usually called Banpo and other statistics are classified according to the administrative Dong, this thesis calls the site as Banpo Dong site.
- 7 The details of forceful eviction are well explained in the *Environment and Urbanization*, 1989 Vol. 1, No. 1, April, pp 89-94.



# Chapter 7

## *Elements of Sustainable Urban Development*

### 7.1 INTRODUCTION

As discussed in Chapter 3, the concept of sustainable development presented in the Brundtland Report, for example, has been understood as the key unifying element for the changing meaning of development under environmental crisis. The concept was, thus, proposed as a new development strategy particularly for Third World countries. This thesis changes the perspective from the global level to the local one, from a strategy for development to a set of principles for social activity or project.

The thesis understands that sustainable urban development is nothing but an ideology which is based on the realisation that in the urban domain, development and environment are so mutually interrelated that without securing one aspect, the other can not be sustained. How, then, can an activity (or a project) be judged to conform to the conditions of sustainable urban development? This chapter examines this question through the case studies of city farming on vacant land in Seoul. The argument in this chapter cannot be a decisive one, but can contribute to the building of a more refined theory of sustainable urban development.

This chapter analyses whether city farming on the case sites of Mok Dong, Banpo Dong, and Sangkye Dong has the elements of sustainable urban development. In other words, it considers whether city farming on each case site has a certain type of the model of the "sustainable hut" developed in Chapter 3. Here the unit of analysis is not an individual city farmer but the city farming activity on a site as a whole. This chapter deals with the elements of sustainable urban development in the sequence of future, nature, participation, equity and finally self-reliance. The analytic procedure follows the method discussed in Chapters 2 and 3.

## **7.2 THE ELEMENT OF FUTURE**

Three criteria for the element of future were summed up in Chapter 3 as follows: an activity should not compromise the future generations' interest; the safety of the short-term future for the present generation should be secured; and, elderly people should be respected and considered as a resource. These criteria of future generation, present security, and the elder's role are now considered in the case studies of city farming on the case sites in Mok Dong, Banpo Dong and Sangkye Dong.

### **7.2.1 The Criterion of Future Generation**

Despite the importance of the criterion of future generation, it seems hard to conceptualise and to prove what the future generations' interest is and how that interest can be protected. Even how the present social activity will affect future generations is difficult to predict. As Attfield (1991) suggests, this aspect is rather an issue of ecological ethics. As Jacobs (1991) argues, however, some members of future generations already exist, that is the children. If the well-

being of today's children and today's environment cannot be secured, it cannot be expected that the welfare of future generations and their environment will be better.

City farmers working land on the case sites do not cultivate for the benefit of future generations. The benefit, if any, might be an unexpected consequence of their activity. During the interviews, the remarks about the future were quite rare. As far as urban land use is concerned, the most ideal for future generations is, in its extreme case, to leave it as vacant until there comes a firm social consensus about how the land should be developed. The considerable cost of demolishing high-rise buildings or other facilities unsuitable for living or using leads to the argument that vacant land in a city should not be developed hastily and irresponsibly.

From this point of view, city farming as a temporary land use seems to be one of the better alternatives to this kind of problem. Whenever there is a demand for land development, the farming site can be easily retrieved without trouble if there is a notice well before the development, say 6 months or a year. So this criterion is relevant for judging whether city farming conforms to the principles of sustainable urban development.

### **7.2.2 The Criterion of Present Security**

The second tier of the element of future is the criterion of present security. Without the safety of the short-term future for the present generation, as argued in Chapter 3, the element of future would be undermined. In order to examine this criterion, the aspect of how the rights of cultivation on each case site are secured is dealt with.

Firstly, the Mok Dong case site is considered. For the purpose of a comparison, a city farming site just beside the Mok Dong case site is considered before the case site is analysed. Block 3 just beside the case site (see Map 6.1 and Table 6.1 in Chapter 6) consists of a single large lot, which means the possibility of that block's development is relatively low compared with the case site which has 17 lots with 3 lots already sold. Although it was not included in the case study analysis, there was a short interview with a 47-year-old city farmer on Block 3. Growing more than 20 different vegetables on his plot (500m<sup>2</sup>), he told the researcher that the Block could not be developed in the near future. Because the huge vacant Block (26,050m<sup>2</sup>) is reserved for a housing development according to the Mok Dong development plan, and it is just one large lot, the possibility of development is one of the lowest of the 20 vacant blocks in the central spine area. So the city farmers on Block 3 can enjoy their farming activity in a more secured condition than the case site.

The interviewees on the Mok Dong case site did not know when the vacant site would be developed. As discussed in the previous chapter, when sewerage facility works on the site started in 1991, the developer did not take the life cycle of vegetables into consideration. The case site had been vacant for ten years, but without changing the present development plan, the possibility of the imminent cessation of land vacancy is very low. However, as the recent turmoil showed, no city farmers on this site can predict exactly when this site will cease to be a city farming site. In short, whether the city farmers on this site can continue farming in the coming years is uncertain.

On the other hand, the Banpo Dong case site consists of two lots: lot number 66-14 Zamwon Dong (the reason for the difference of Dong names on the same site was explained in p105), nearer to the Kyungwon Middle School than the other lot, and owned by the city government; and lot number 66-2 Zamwon Dong,

owned by the Korea Land Development Corporation. Both lots are under pressure from the development for a school building. In April 1992, 20 Seocho Ku councillors proposed a resolution to demand more high school establishment on the long-neglected sites of vacant land reserved for educational use. The case study site was included in the list of school building sites. In addition to this pressure, as will be examined in the criterion of civil disobedience, other development pressure was high because this site was near to a busy commercial area. Although some city farmers on the site have enjoyed growing vegetables for the last 15 years, there is no guarantee that they can cultivate the site in the coming years. Without a legal right to use or occupy the vacant site, all the city farmers interviewed on this site were concerned about a sudden discontinuation of their activity.

What most of the city farmers on the Sangkye Dong site worry about is the interruption of farming due to a sudden land development. There have always been rumours about an imminent development since 1989. In 1992, city farmers on this site heard that a church would be built in April, which was delayed until July, and that was once again postponed. In these circumstances, a number of city farmers tried to secure their farming opportunities by occupying other vacant sites around this area. For example, Mr Kwon prepared a dry riverbed plot a bit distant from his home. They wanted to know exactly when the development would begin. In this sort of case, a temporary lease arranged by local government can help city farmers. But at the moment, the present security of this activity is not certain.

All across the three case sites, the present time security is not guaranteed. Therefore city farming on the three case sites do not conform to the criterion of present security.

### 7.2.3 The Criterion of Elder's Role

The major problems most elderly Koreans face are: decline of income and economic dependence, health care difficulties, loss of role, lack of leisure activities, and loneliness (Choi 1992; see Chapter 4). These problems are all interrelated. Although the question of income was not included in the final case analysis, during the interviews, many city farmers across all the case sites mentioned that their pocket money was not enough.

In South Korea, the mandatory retirement age in private sectors is generally 55 while in public sectors it varies from 58 to 65. With a prolonged life expectancy and still prevalent rigid age-grading norms, the retired people need to find new roles and activities. Not only because of the decline of income, but also because of the loss of role models, most elderly people are unable to enjoy leisure activities. But city farming gives an opportunity to cope with these problems: vegetables coming from the plots can contribute to the household income; with their own farming techniques and experience, city farmers find a new role as farmer; city farming itself is a good leisure activity which also helps keep up their health.

All the city farmers interviewed are over 65. The city farming activity on each case site in Seoul reflects the changing face of modern society in South Korea: prolonged life expectancy, independent elderly couples, and farming as a leisure activity, for example. Being alienated from their own families and society, the elderly struggle hard to find out the meaning of leftover life and the way to spend time. However, the city farmers on the case sites, mostly elderly, contribute both to the household economy and to the maintenance of idle land. Nobody pays for their work, but they produce something useful for their families and for society. They are the managers of community common resources. So in the city farming activity, the role of the elderly is significant.

### 7.3 THE ELEMENT OF NATURE

The three criteria for the element of nature discussed in Chapter 3 are recapped here: nature's life-support systems in cities must be improved; urban green spaces and natural wildlife must be conserved; discharge of harmful pollutants and introduction of some materials which do harm to the nature's ecosystems in cities must be controlled. Through the case studies, these criteria of life-support system, nature conservation and pollution reduction are examined in the following sections.

#### 7.3.1 The Criterion of Life-Support System

It seems to be difficult to prove a direct relationship between city farming and life-support systems. The sheer complexity of urban ecosystems does not allow any simple judgement about the relationship. However, the analysis of the relationship can be done indirectly.

There is a study which considers the relationship between vacant land and urban ecology (Choi 1988). Choi's research considers the aspect that vacant land accelerates soil erosion disrupting the hydrological cycle in urban areas. Furthermore, sites of vacant land are usually used as rubbish tips causing soil pollution. Therefore as long as city farming is practised on vacant land, such side effects would be reduced or prevented. Although there must be rigorous research into the interrelations between city farming and urban ecosystems in terms of air quality and microclimate control, some research shows that plants and trees as well as vegetables can contribute to the workings of urban ecosystems (see Bernatzky 1978; Grey and Deneke 1978; Clouston and Stansfield 1981; Spirn 1984).

On the other hand, because soils contribute to the circulation of geochemical elements, a pavement is the worst thing for the circulation (Morris 1982; Douglas 1983). The three case sites were once used as grazing or agricultural land. As far as city farming continues, the sites will remain unpaved, and hence will at least in part be good for the urban ecosystems. Even if there is no direct scientific evidence that city farming contributes to the workings of life-support systems in urban areas, as long as city farming is permitted on vacant land it can reduce some of the urban ecological problems.

In relation to this consideration, there is a relevant issue of bio-diversity. As WCED (1987 p148) points out,

many species are losing whole populations at a rate that quickly reduces their genetic variability and thus their ability to adapt to climatic change and other forms of environmental adversity. For example, the remaining gene pools of major crop plants such as maize and rice amount to only a fraction of the genetic diversity they harboured only a few decades ago, even though the species themselves are anything but threatened.

There is a new viewpoint that small-scale farmers (here it is meant commercial farmers) can play a crucial role in genetic diversity of natural resources (Cooper et al. 1992). Across all the case sites, the sheer variety of vegetables grown by city farmers implies that city farming can contribute to the genetic diversity of natural resources. Newcomers to the case sites usually started cultivation by getting seeds from the city farmers who obtained the seeds from their harvested vegetables. Although some city farmers buy packets of certain seeds which are mass-produced and chemically treated, most of them use the seeds coming from the vegetables they harvested for the next year's sowing. That also helps the workings of life-support systems in terms of bio-diversity. Therefore city farming can be considered to be related to the criterion of life-support system.



### 7.3.2 The Criterion of Nature Conservation

As WCED (1987 p150) notes, the species that are important to people include more than those wild plants that are relatives of agricultural crops, or livestock. Species such as earthworms, bees and other insects may be as important as, or more important than, the plants in terms of their roles in the workings of ecosystems. This leads to the consideration of the city farming site as a community open space and as a place where some wildlife is conserved. As Hough (1990) suggests, urban open spaces are often of greater environmental significance as places for the maintenance of wildlife and plants than they are for recreation. Although some vegetables need protection from birds, birds also feed on insect pests which would otherwise damage crops. Such aspects as environmental and educational benefits of city farming are now considered.

Firstly, the Mok Dong case site is considered. Except for the vacant sites along the central spine area, there is no other vacant land within the jurisdiction of Mok 5 Dong Office. Within the whole Ku boundary, there is little vacant land except for the riverside bed of the Anyang River and, of course, for the central spine area. Therefore sites of vacant land as open spaces are very important in the highly dense area like Mok Dong district which has not enough open spaces. Meanwhile, the Mok Dong case site serves as a habitat for wildlife. Mrs Jeong, one of the interviewees on the Mok Dong site told the researcher that she failed twice to grow beans because pigeons destroyed the sprouts. Mrs Kwon complained about a flock of pigeons pecking at and eating beans and sprouts of other vegetables. Mr Sohn also pointed out the problem of rats and mice, and pigeon damage. Although most of the city farmers on this site complain about the damage, the damage is not so serious and with proper care and protection, the incidence of damage can be lessened. The researcher also observed such insects as dragonfly and butterfly which are rarely seen these days in Seoul, and other birds flying over the site.

Now the cases of the Banpo Dong site are considered. In the case of Mr Lee, damage is done to green perillas by pigeons. Mrs Shin had similar damage; in addition to the pigeon damage common to other sites, rats and mice damage was serious. In 1991, Mr Park collected fallen leaves from a nearby hill to spread on his plot. He disposes of the remnant of harvest by either burning or burying it under the plot. Last year he buried peanut stems to be rotted under the ground, which helped improve the soil quality. Pigeon damage is done to corn and beans.

On the Sangkye Dong site, sitting on a bench beside the city farming site during the site visit, the researcher observed a variety of birds singing and butterflies flying through the plots. This city farming site, together with the neighbouring community public park, provides a place for wildlife in the middle of the residential area. This site also gives an educational benefit to the community. For example, on the 7th July in 1992 when the researcher visited the site, children of the nearby primary school attended an opendoor drawing class at and around the site. Children drew pictures of the city farming site and of trees in the neighbouring small community park. Nowadays, this kind of scene in the middle of residential area in Seoul is quite rare, and city farming site here has an educational benefit.

Across all the case sites, city farming sites serve as urban green open spaces, and as long as city farming is allowed on vacant sites, natural wildlife can be conserved. City farming sites are the only place where city farmers and their neighbours have a chance to experience nature within their communities. City farmers want to enjoy the city farming activity despite some wildlife damage done to their vegetables.

### 7.3.3 The Criterion of Pollution Reduction

Some research suggest that city farming can help reduce the general level of pollution in a city (Spirn 1984; Choi 1988). Vegetables and plants can create a desirable microclimate, filter air pollutants, stabilise slopes and erodible soils, absorb stormwater runoff, filter water pollutants, and provide shelter and food for wildlife (Spirn 1984; Mollison 1990). One of the most relevant issues for this criterion seems to be soil pollution. This section looks at whether city farming can contribute to the reduction of the level of pollution focusing on the use of artificial fertilisers and agricultural chemicals.

Firstly, the Mok Dong site is considered. Mrs Jeong said that some fertilisers are used, but no chemicals are applied. Leaves eaten by worms are simply taken off. Mr Lee said that composite fertilisers are applied and chemicals are used but not frequently. Mrs Kwon said that she uses some fertilisers but no special chemicals except for one for red pepper. Mr Sohn said that some fertilisers are used but no chemicals. Mrs Cho said she uses both chemicals and fertilisers mentioning that on this site lettuces are free from worms so that no chemical is needed. Even if the farmers are well aware of the bad effects of agricultural chemicals and artificial fertilisers, they do not take care when applying them. If a city farmer applies chemicals with great success, others just follow suit.

Now this section turns to the consideration of the Banpo Dong case site. Mrs Park uses no chemicals and fertilisers. Mr Lee uses some fertilisers but no chemicals. Mrs Shin makes heavy use of both chemicals and fertilisers; she applies chemicals three or four times for a harvest. Mr Park applies a little amount of fertiliser, but no chemicals except for the application on red pepper. Mrs Kim uses both chemicals and fertilisers. Pesticides are particularly applied to pumpkins so as to kill aphids.

As far as the Sangkye Dong site is concerned, Mr Yoo and Mr Shin said that they do not use chemicals, but other Cases use both chemicals and fertilisers. Mr Hong has often borrowed them from the neighbouring city farmers. Mr Shin said that lettuces do not need chemicals; he has learnt that ash is a good fertiliser.

Generally speaking, all across the three case sites, city farmers overuse both agricultural chemicals and artificial fertilisers although they are well aware that these are not good for the urban environment. But with few birds and insects which prey on other insect pests, Seoul seems to be one of the difficult places for cultivating vegetables. In conclusion, city farming on the three case sites does not contribute to the reduction of urban pollution.

## **7.4 THE ELEMENT OF PARTICIPATION**

There are three criteria for the element of participation: in a matter of community development, community members must participate in the decision-making process; free communications to improve exchange of information, skills and technologies must be secured; effective and intimate relationship between local government and the community must be developed. Here the three criteria of the community decision-making, community information, and government incentive are examined.

### **7.4.1 The Criterion of Community Decision-making**

As far as the Mok Dong site is concerned, all the 5 city farmers interviewed work by themselves, and they occasionally get some help from their spouses (Cases 2, 4 and 5), but rarely from other members of family or outsiders. In most Cases, the families of the city farmers are not interested in the activity.

Furthermore, they dissuade the city farmers from going to the plots. The reason is that their families are worried about the city farmers' overwork and health problems. But their families' complaints are not strong enough to prevent the elderly from engaging in city farming. The consideration above seems to imply that city farming is rather an individual concern.

There is no community decision-making. All decisions are individually made by each farmer: how many vegetables they grow; how wide the plot they occupy; when to work and how to work. No government officers intervene in their activities. No planning experts or agricultural experts are consulted; they and their neighbouring city farmers make the decisions. Without guidance from the Dong office and the Ku government, they themselves create a new living environment as good as some official plans could produce. As far as the Mok Dong site is concerned, most of the decisions concerning city farming are made by the individual city farmers lacking the community decision-making.

The city farmers interviewed on the Banpo Dong case site also work by themselves. During busy times like the harvesting season, Mr Lee and Mr Park's wives come out to help them. But the case of Mrs Shin is a bit different from the other city farmers interviewed here. Usually she works alone, at busy times she hires two or three workers paying 20,000 won (1,200 won = 1 pound) a day; sometimes her friends help. In all the Cases interviewed, the families of the city farmers dislike them going to their plots. In the case of Mrs Park, even her grandchildren do not know where and what their grandmother cultivates. In the case of Mrs Shin, although she was dissuaded from working the land by her family when she began farming, now they ignore her doing city farming. As for Mrs Kim, although her family do not like her farming here, she goes her own way. But, when the Korean Veterans Association tried to develop a golf driving range on this vacant site, all the residents of the community including

city farmers opposed the proposal and finally they succeeded in getting the plan abandoned. However, except for this event, there has rarely been community-level decision-making concerning city farming on the Banpo Dong site.

On the Sangkye Dong site, except for Mr Shin, the city farmers work solely by themselves. Mr Shin and his wife both work here. In terms of family opinion, to the contrary of other case sites, there are some families who support city farming: for example, Mr Kwon's son likes him to cultivate here. In the case of Mr Shin, even though sometimes his son in high school helps to carry a bucketful of water, his son is indifferent to city farming. But generally speaking the families of the city farmers interviewed do not like city farming.

In short, all major decisions about farming, including those about production cost, variety and amount of vegetables, and working hours are made by the individual city farmers. The decisions are hardly community-based. Each city farmer selfishly occupies a patch of vacant land to take advantage of personal opportunity even without support of their families.

#### **7.4.2 The Criterion of Community Information**

As argued earlier in Chapter 3, a free information flow is an important precondition for participatory community decision-making. The point here is whether there are any community information networks or communication to help the city farmers on the case sites.

On the Mok Dong site, Mrs Jeong has many talks with neighbouring city farmers about technical problems, household affairs, and even their health problems. But in the case of Mr Lee, there is not so much communication; he

even criticised a temporary shed of a neighbouring farmer on the grounds that it is, he believes, an eyesore because the materials for building the shed are recycled ones from all sorts of rubbish such as bamboos, iron bars, pieces of board, and some plastics, and that it could cause unnecessary trouble with local government officials because the shed seems to him a facility which should not be allowed on this kind of site. In fact, the neighbouring city farmer did not consult with him when she built the shed. Mrs Cho often talks about farming matters with other city farmers. Sometimes they exchange information at the hall of the elderly in the community. Through the exchange of information, they successfully get to know what the technical problems of city farming are and what the limits and conditions for the activity are. Additionally there are two local newspapers: the weekly Yangchon and the biweekly Mokdong Apart News. The former covers the news of the whole Ku area while the latter deals only with the news of the Mok Dong district. On the 10th October 1990, the Mokdong Apart News carried an interview with a city farmer who lived in 8 Danji (Apartment Block). The article showed how a 81-year-old man managed a number of plots scattered around the 8 and 9 Danjis while keeping up his health. From this point of view, there seems to be a free information flow about the city farming activity on the case site.

On the other hand, city farmers on the Banpo Dong site get together to talk and consult each other about farming matters. Mrs Park usually goes to the community hall for the elderly to have a chat with other elderly people but she has little communication with neighbouring city farmers on this site. In the case of Mr Lee, there is no communication with other city farmers on the site. There are at least two reasons for his lack of communication with other city farmers: firstly, as a non-resident in this community, he comes to the site only 2 or 3 times a week; secondly, other city farmers in the main work early in the morning. He did not know who initiated city farming here while most of other

city farmers on this site do know who the person is. Mrs Shin said that city farmers on the site consult with each other. She often gives some pieces of advice to beginners who afterwards as a token of gratitude buy her fertilisers, for example. In addition to these interviews, the researcher thoroughly reviewed a local newspaper called *The Seocho Weekly* from the first issue of 1989. The researcher could not find any articles about city farming except for an article that a local councillor proposed a resolution for building a number of high schools on vacant land including the case site of this research. However, a national newspaper carried an article on this case site when there was a conflict between a developer who wanted to build a golf driving range and the local residents (see Choseon-Ilbo newspaper 24.8.1991). On the Sangkye Dong site, a group of elderly city farmers often get together around a wooden bed just beside the site to talk about everyday life and technical problems of cultivation. They assess the quality of each other's vegetables talking about whose vegetable is best and whose is the worst.

Across all the case sites some city farmers complain about the lack of communication between the city farmers on the sites. But information networks such as local and national newspapers and meeting places such as the hall of the elderly and a wooden bed in the case of the Sangkye Dong site are all open to every city farmer. Generally speaking, therefore, there seems to be a free information flow.

### 7.4.3 The Criterion of Government Incentive

Firstly, the case of the Mok Dong site is considered. Mok 5 Dong Office is in charge of the case site, but the office has no interest in city farming. The office, however, tacitly permits city farmers to cultivate the vacant land which is owned by the city government. Until now there have been no public complaints



or civil appeals with regard to the farming activity. In fact, Dong officers are not in a position to permit city farming formally. There are three reasons for that: firstly, they are afraid of the city farmers' potential disobedience when requested to relinquish the land for future development; secondly, city farmers might ask for compensation for the damage done to their vegetables or for the discontinuity of their use of the site; and finally and most importantly, a Dong Office, as a lowest level of administrative office in Seoul, does not have any authority to deal with land problems. An interviewee at Mok 5 Dong Office simply did not want to make unnecessary trouble when there were a lot of other administrative things to do. At that moment the edge of the case site, with a width of about 10m, was being used as temporary flower seedbeds. The seedbeds were being maintained as part of the Saemaul (New Community) job-creating project which is financed by the Department of Public Parks and Green Areas in the Ku Office. The interviewee's concluding remark was that he does not want to be involved in this matter because city farming could cause a lot of trouble, but he agreed in principle the desirability of city farming on vacant land in terms of provision of a leisure activity for the elderly, environmental conservation, and landscape improvement.

The Department of Public Parks and Green Areas of Yangchon Ku is in charge of the flower seedbeds at the edges of the vacant Blocks in the central spine area. An interviewee at the department said that the department has no real interest in city farming. The only reason why the department had become responsible for the maintenance of the flower seedbeds on the vacant blocks was simply in order to provide a job-creating project for the unemployed because his department had a budget allocation for such projects.

The chief clerk of the Urban Maintenance Section in the Department of Urban Maintenance of Yangchon Ku acknowledged that there are a large number of

city farmers in the Ku, and that the Ku government tacitly permits this. According to him, the situation of the case site is, in terms of land characteristics, slightly different from other sites in most other Kus. Other city farming sites, for example in Banpo Dong, are zoned by law for educational use, which guarantees cultivation of the site until development starts. But in the case of Mok Dong, now that the public-financed housing project has finally finished, the reserved area of the central spine area is supposed to be unused and ready for the exclusive development by private developers. The Ku government has the responsibility for solving any problem arising from land being occupied by city farmers. The most worrying thing for the Yangchon Ku government is the likelihood that city farmers will seek compensation from either private developers or the city. Furthermore there is another possibility that in the longer term the occupation of the city farming plots lead to land ownership disputes. Because of these factors, the stance taken by the Ku government continues to be passive.

The other hindrance to city farming becoming an alternative way of solving the land vacancy problem, is lack of finance. The interviewee at the Department of Urban Maintenance believed that government money is required to mobilise such heavy equipments as trucks, which will be needed in order to carry away the heaps of rubble and other debris and dispose of construction materials strewn all over the vacant land, and such as bulldozers, which will level the sites off. However, city farming on vacant land, as a project, would be given one of the lowest priorities of budget allocation because it would be in competition with other urgent matters. Although admitting that vacant land in the central spine area is an eyesore and has negative effects on the living environment, the department in charge of this matter has no plans to initiate a project like city farming under the current circumstances.

This part turns to the Banpo Dong case site. According to a Banpo 3 Dong officer interviewed, there have been no guidelines for the control of city farming coming from the Ku and city government except for an official document from Seocho Ku Office in 1990 which suggested that the Dong Office encourage local residents to make the vacant land "green". However, the document also ordered that the cultivation of crops and vegetables on dry river beds in its jurisdiction be banned. He recalled that he once evicted a number of illegal occupants from the sites of vacant land in his Dong and destroyed unauthorised buildings on the sites. He provided the researcher with information that there is a vegetable garden at the Han Riverside Park in Zamwon Dong which is cultivated by the families of the officers with the Park.

There are a lot of vacant sites within the jurisdiction of Banpo 3 Dong, most of which are used as city farming sites. The present parking lot, just beside the New Core Department Store is, in fact, vacant land which is still owned by many private landowners. Such facilities easily seen here and there as golf driving ranges, tennis courts, and parking lots are, he said, variants of the so-called disguised vacant land. In order to solve the problem of land vacancy in his Dong, some years ago, the Dong Office once opened a temporary tool shop at the office to provide city farmers with farming tools cheaply. Furthermore, at the time of a monthly community meeting (called Bansanghoi), elderly people in Banpo Dong were once encouraged to engage in city farming. All of these initiatives by the Dong Office are not official ones because city farming is still against the law in terms of squatting. However, this is surely a positive incentive from the office.

However, a chief clerk in the Department of Public Parks and Green Areas of Seocho Ku was pessimistic about permitting city farming officially. He does not trust citizens, he said, and thus even if there were a written agreement between

city farmers and landowners, he was quite sure that the city farmers would not give the plot easily back to the landowners when requested for development. He thought that while a city farming project could be possible in Western countries, it is not appropriate in South Korea. He gave the researcher an example: for the "reserve land" on a LRP site, the exact time of the development is anybody's guess and if, for example, the Seoul Board of Education tried to build a school there, giving only a short notice, the project could be delayed by the appeals of city farmers claiming compensation for vegetables and other facilities attached.

Another problem suggested by him is a financial one. Even for the temporary use of vacant land as a city farming site, he insisted that there should be some ensuing measures and provision of facilities which need a budget allocation. For instance, the provision of new topsoil would require government money. He believed that under the present circumstances, it is hard to expect a city farming programme to get a higher priority of budget distribution. In conclusion, he noted that without the preparation of legal and institutional systems which can guarantee city farming on vacant land, it is premature to introduce city farming as a way of using vacant land. But he did not seem to recognise that, in reality, a considerable number of city farmers in his Ku now use vacant land temporarily and that Banpo 3 Dong Office has actually encouraged elderly local residents to take up city farming.

After that meeting, the researcher met another chief clerk in the Department of Urban Management. As far as he knew, installation of any facilities on vacant land is not allowed, but cultivation of vegetables was until then permitted tacitly because he believed it was not a big trouble-maker. However, in 1992 an official document from the city government was received which ordered the imposition of a charge on the illegal use of vacant land. He stated that the order

was carried out in the case of at least some illegal users of vacant land. He even noted that city farmers using vacant land should be included in the charge list. However, none of the city farmers whom the researcher had met complained about this kind of charge problem. City farmers were unaware that this kind of regulation was in force. In short, in the case of Banpo Dong site, although the public officers at the Ku office are pessimistic about city farming, at the Dong level, there are a number of positive incentives for city farming. Therefore, it seems that government incentives can be identified in the Banpo Dong case site although it is still not officially approved by Ku and the city government.

Finally, the Sangkye Dong case site is now considered. A public officer interviewed at Sangkye 10 Dong Office said that what worried him most concerning city farming on vacant land is not whether it is permissible or not, but about the matter of potential compensation occurring when the site is developed. There is a demand for government money in order to arrange the lease of vacant land to city farmers. But at that time, it was difficult to get the money. The matter of city farming is the responsibility of the Ku and city government. However, his office is at the lowest level of administrative unit and so has no authority to organise a city farming project. Moreover, it is not a serious matter because this activity is done only by the elderly as a pastime without causing any social or other problems.

A public officer the researcher interviewed at the Section of Green Areas in the Department of Public Parks and Green Areas of Nowon Ku is not the chief clerk of the Section, but actually in charge of all details about open space management in his Ku. He noted that city farming is not a matter of Ku government as it is solely a matter between landowners and occupiers. According to him, it is hard to consider city farming plots on roadsides as green spaces where administratively those parts are classified as roads. If the Ku

government allowed city farming, it could be dragged into a troublesome conflict when a land development scheme disrupts the farming on the site causing compensation appeals by the city farmers. Furthermore government finance is needed to level off uneven vacant land, for example, to make the site appropriate for farming and to supply a watering system.

According to him, because laws prohibit tapwater from being used for watering crops, the development of access facilities to groundwater will inevitably cause another burden on government finance. Therefore without new laws and institutions that recognise the legitimacy of city farming, it is premature for the local authority to be involved in this potentially controversial activity. He appreciated that, in principle, there is no doubt that city farming is desirable but, he added, it may be too early to introduce that kind of system considering the level of both national income and culture. He thus suggests that something might be done in 5 to 10 years time, but nothing should be done now. With its mountainous topography, a third of Nowon Ku area is composed of green open spaces. But green open spaces near the residential areas are very few except for some public parks. In terms of providing an informal green space, city farming is desirable, he said.

Except for Banpo 3 Dong Office, across all the case sites, Dong Offices and Ku local authorities are turning a blind eye to city farming. As evident throughout the interviews with public officers, the officers worry about unnecessary trouble that they may have to cope with, and regard a potential city farming project as unlikely to attract government money. As long as Ku authorities and the city government keep ignoring this activity, sooner or later some negative effects of city farming will occur: overuse of agricultural chemicals, conflicts with landowners, and disputes within a community between those who have their own plots and those who have not.

In short, it can be concluded that Ku officers consider vacant land in terms of property value only. It seems to be hard for local government officers to understand city farming as a beneficial use of vacant land in terms of environmental conservation. Although the city government shows a growing interest in city farming as in the cases of the barley fields project and the promotion of the "Blue Leaf Club" (see the examples of city farming in Chapter 5), generally speaking, the Dong and Ku officers interviewed have ignored city farming. However, in the Banpo case site, there is evidence that the Dong office has positively encouraged elderly people in the community to join in city farming. It can be concluded that while there is no government incentive at all from the Ku and Dong Offices on both the Mok Dong and Sangkye Dong case sites, there are some incentives for the city farming activity on the Banpo Dong site.

## **7.5 THE ELEMENT OF EQUITY**

Three criteria were suggested as the components of the element of equity in Chapter 3 as follows: equal opportunities to common resources must be provided; distributive justice must be achieved; rights should be given to protest unfair systems. These are considered in the case studies of city farming on the three case sites.

### **7.5.1 The Criterion of Equal Opportunity**

Smit and Nasr (1992) argue that city farming offers opportunities to some marginal groups and thus has positive impacts on equity. With its low-capital, high-labour nature, city farming provides opportunities for women, the unemployed, and the elderly to realise their abilities.

Taken across all the case sites, there is a huge amount of vacant land directly adjacent to high-density high-rise apartment blocks where elderly people in the community do not have enough open spaces in which they can enjoy their spare time. A number of speculators often make profits from the vacant land without toil. However the vacant land could have otherwise been used in a socially desirable way. The living condition in the clusters of high-density high-rise apartment houses, packed together without enough open spaces, could be improved by the release of the vacant land. The sites of vacant land should be common resources for the community, to which every member of the community has equal rights to access regardless of their backgrounds and abilities.

The interviews across all the case sites have shown that, even though most of the city farmers did not have prior farming experience this proved to be no hindrance to them. In city farming, there is no discrimination in terms of gender, class, or whatever. They are equal in the access to vacant land as a common resource for the community.

### **7.5.2 The Criterion of Distributive Justice**

Not only does city farming provide open opportunity to the marginalised members of the society in particular, but it also contributes to income redistribution. Although most of the interviewees from the case sites do not grow vegetables for selling them, there is no doubt that the vegetables they grow can contribute to their households' incomes.

City farmers in the Mok Dong and Banpo Dong case sites live in middle to upper income communities, and city farmers in the Sangkye Dong site live in a low to middle income community. Generally speaking, although the city



farmers across the case sites can be classified into a middle income group, they do not have their own income sources. The interviews show that they are in need of some pocket money and this is one of the reasons why some city farmers are more interested in the economic benefits of the activity. Although the case studies do not deal with city farming in the poorer communities, city farming in slum areas, however, must be a good source of income and surely a supplement to the family income.

Considering the benefits from city farming, the input cost is negligible. For example, Mrs Jeong of the Mok Dong site, the input cost is, on average, about 5 pounds a year. When she first started city farming in 1990, she spent about 20 to 30 pounds a year, and now in 1992, little money is spent because, for example, she uses the previous year's seeds. But 1991 was a disaster for her because just after seeding, her only farming plot near the newly-built Usung Eiffel Town Building was flattened by bulldozer in order to lay water and sewerage pipes under the ground. In the case of Mr Lee, input cost was about 20 pounds in the first year for seeds, a hoe, and a spade. The costs are nearly the same across all the case sites. Although there are some city farmers who spend less than 5 pounds a year, the costs are roughly between 20 to 40 pounds and they are mostly for buying seeds and fertilisers.

One of the reasons why the elderly could easily engage in city farming is that it does not cost much, and, in comparison with the cost, it gives a lot of benefits in economic terms. This also has an aspect of distributive justice. From this point of view, city farming on vacant land has potential to contribute to the improvement of distributive justice.

### 7.5.3 The Criterion of Civil Disobedience

Some may argue that city farming itself is a symbol of civil disobedience because city farmers squat vacant land illegally but without resort to violence. However, the activity is too passive to be considered a strong social protest against an unfair system. Here some aspects of civil disobedience found in city farming on the case sites are considered.

Firstly, the Mok Dong case site is considered. When a developer started to construct a high-rise building called "Usung Eiffel Town" on a lot at the edge of the case site, according to the interviewee at Mok 5 Dong Office, the developer allegedly tried to inform every city farmer on the lot of the imminent development in order to deflect any possible public complaints about the loss of vegetables occurring when he came to clear the land. But the interviews with the city farmers on the case site disclosed that all the vegetables in their half grown state on the lot had been destroyed due to the building construction work without compensation. This was still a matter of considerable regret to most of the city farmers even if they were advised shortly before the work. When cultivation of their plots was disrupted by the construction work in 1991, the city farmers did not protest or appeal. They were merely obedient. Even when their half-grown vegetables were destroyed by bulldozers, they did not seek compensation because they accepted that those plots were not theirs.

Meanwhile city farmers on the Banpo Dong case site, particularly on the site of Zamwon Dong 66-14, joined in a civil protest against an organisation's development proposal. In July 1991, the Korean Veterans Association tried to build a golf driving range on the land reserved for educational use prescribed by the Urban Planning Act, which was at the time owned by the Korea Land Development Corporation and now owned by the city government. The Korean

Veterans Association intended to construct a temporary golf driving range on the site until a school could be built in the future. Because there was no specific plan drawn up for any school construction on the site, Seocho Ku local authority permitted the organisation to build the sports facility. But no sooner had the organisation started to flatten the site, in the process destroying vegetables grown on the site, than it was confronted with a severe protest from both the residents of neighbouring apartment blocks and the members of the PTA of the Kyungwon Middle School just beside the site. They argued that the driving range would not only destroy the living conditions because of night illumination and noise but also would have a harmful effect on the pupils of the neighbouring school. The community leaders had surveyed the opinions of local residents twice with questionnaires since March 1991. The survey results delivered to the Ku officers concerned recorded that 90% of the residents were against the construction. The community criticised both the Ku Office and the Korea Land Development Corporation: the Corporation for its excessive interest in the profits coming from the rent of the land reserved for school use; the Ku government for its negligence towards the local residents' welfare and their opinions. After continuous civil protests for several months, the Korean Veterans Association finally gave up building the driving range, and the city farmers on the disputed lot were again free to enjoy city farming.

In comparison with the Banpo Dong case site, there have been no disputes over this kind of issue on the Sangkye Dong site. Some of the city farmers recently moved into this site from the opposite city farming site which was as large as 10,000 m<sup>2</sup>. When a private landowner proposed to construct a bus terminal on the large city farming site just opposite to this case site, there was a community level protest against the development. However, the protest was not against the cessation of city farming but against the bus terminal construction itself, because the bus terminal would destroy the living environment of the

community and eventually damage the value of their property. As far as city farmers on the disputed site are concerned, they had no other option than to move out of the disputed site. As already mentioned in the previous chapter, some city farmers on the case site had occupied plots on both sites, and they simply gave up the plots on the opposite site when things went wrong. As far as the case site is concerned, the possibility of civil disobedience did not occur until now because there had been no disputes with landowners or local government over city farming.

As far as the criterion of civil disobedience is concerned, the three case sites show different pictures. On the Mok Dong site, when a development for a part of the site was proposed, there was no protest from the city farmers or the community; on the Banpo Dong site, local residents successfully blocked a developer's bid for building a golf driving range; on the Sangkye Dong site, many of the city farmers who occupied the plots of both the case site and the disputed site, simply moved out of the controversial site. From this point of view, although the above two criteria of equal opportunity and distributive justice are relevant to city farming across all the case sites, the criterion of civil disobedience does not seem to be appropriate for city farming except for the Banpo Dong case site.

## 7.6 THE ELEMENT OF SELF-RELIANCE

In Chapter 3, three criteria were suggested for the element of self-reliance: productive resources of local areas should be devoted to meet the needs of local residents; an activity should be energy-saving and energy-efficient; the number of participants in a social activity must be contained under a certain carrying capacity. In the following section, the criteria of local trade, energy saving, and self-containment are considered respectively.

The scale and the diversity of city farming in Seoul as a way of food production are underestimated. In addition to the various aspects discussed above, city farming has a number of economic aspects too. Whereas for some city farmers city farming is a source of income (in the case of Mrs Kwon of the Banpo Dong case site), for others it is a source of fresh food. The next section deals with how city farming is related to the criterion of local trade in terms of the food market.

### 7.6.1 The Criterion of Local Trade

The variety of vegetables and fruit displayed at the ordinary local supermarkets in Seoul vividly demonstrates the existence of a complex world food system. Regardless of seasons, all sorts of food from all around the world are available as long as there is a demand for them. This system not only makes people ignorant about the origins of the food they consume but also exploits the agricultural workers of developing countries (Madden 1992), and contributes to the contamination of groundwater and air (Lovell 1991).

Transporting food over long distances wastes fossil fuel energy and creates creating air pollution. In addition, preservatives have to be applied in order to preserve the food long enough. This system of food production and consumption must be changed because this is simply not sustainable and does harm both to the economy and to the environment. In relation to this aspect, this section examines how the harvested vegetables are distributed.

Firstly, the Mok Dong case site is considered (see Figure 7.1).

**Case 1:** A bowl of beans was distributed to each of 5 daughters who live in respectively Banpo Dong, Sinbanpo Dong, Daebang Dong and Mok Dong in Seoul and Bupyong in Kyungki Province (a Province in the

Seoul Metropolitan Area). Green perilla seeds were distributed to the neighbours.

- Case 2:** Most of the vegetables were consumed at home although sometimes they were given away to the neighbours, but never outside of Mok Dong.
- Case 3:** Harvested vegetables were distributed to the neighbours, and to the eldest daughter and son who live in Mok Dong. The vegetables were also distributed to Munrae Dong, Dorim Dong, Sangmun Dong, and Suwon (Kyungki Province).
- Case 4:** To the neighbours only; never outside of Mok Dong
- Case 5:** To the neighbours and a son living in Mok Dong.

The Cases above show that the vegetables produced on the plot rarely go outside of Seoul; or even rarely out of Mok Dong district. The next part considers the Cases of the Banpo Dong site (see Figure 7.2).

- Case 1:** The vegetables harvested were distributed to the friends in the community hall for the elderly and the neighbours; Bupyong (Kyungki Province), Banpo Dong, and Kunsan (Jeonbook Province).
- Case 2:** To his sons and daughters living in Huam Dong, Bangbae Dong, and Sinsa Dong respectively.
- Case 3:** Until recently she had given away almost all vegetables harvested to the neighbours, but since 1991 she has sold most of the vegetables because she needs money for, for example, paying the tithe even if she gets some pocket money from her sons and grandchildren. Sometimes people come to her plot to buy the vegetables grown on

the site, and occasionally she goes to the market to sell the vegetables - once there she has to sit around all day long.

**Case 4:** He gives away his harvested vegetables to the people who go to the same church. Other destinations of the vegetables include Oryun Dong and Zamsil Dong.

**Case 5:** To the neighbours and relatives. Other destinations include Bongcheon Dong and Sangkye Dong.

Finally, the Sangkye Dong case site is considered (see Figure 7.3).

**Case 1:** The harvested vegetables are distributed to his relatives and friends living in Jungkye Dong and Zamsil Dong.

**Case 2:** To the neighbours.

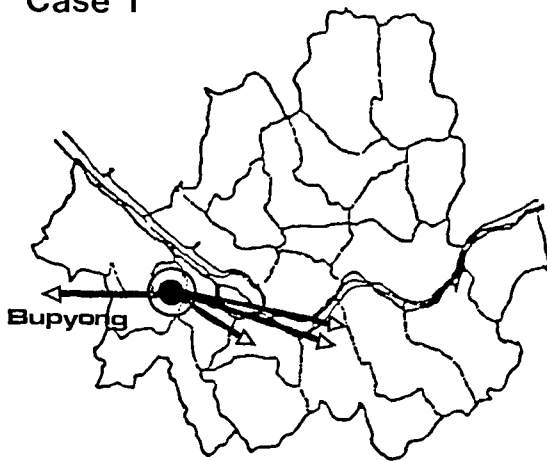
**Case 3:** To the neighbours and Chang Dong.

**Case 4:** To a neighbour and her household only.

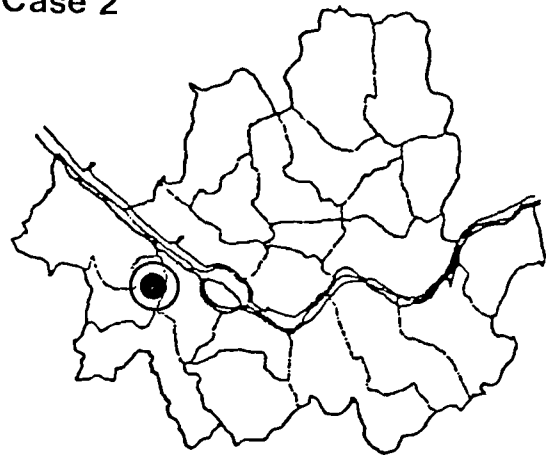
**Case 5:** To the neighbours and his friends living in Sangkye Dong, Jangwi Dong, and Bomun Dong.

Compared with the distribution lines for commercial agricultural produce, those for the vegetables from city farmer to final consumer are very short. Unnecessarily long distribution networks for produce are not only a waste of energy but also increase environmental pollution because waste is produced at every stage of a network. Smit and Nasr (1992) note that on average, the food in a supermarket in the United States travels an estimated 2,000 kms between its point of production and that of consumption. This is simply not sustainable. In short, the criterion of local trade is highly relevant to the city farming activity across all the case sites.

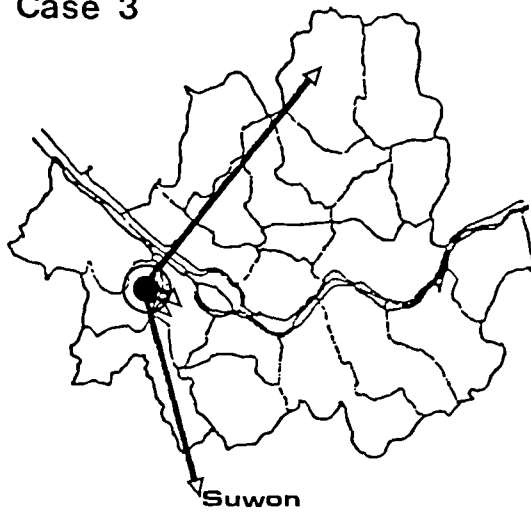
Case 1



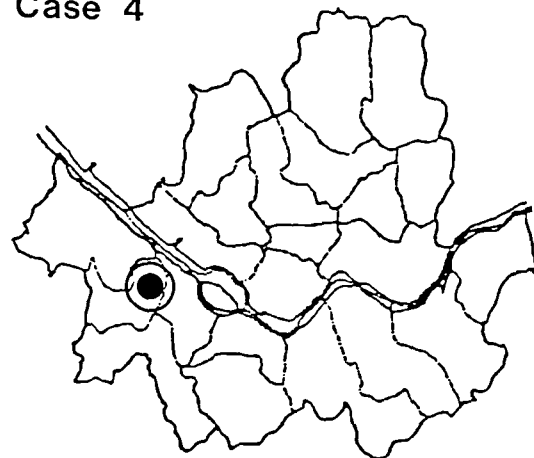
Case 2



Case 3



Case 4



Case 5

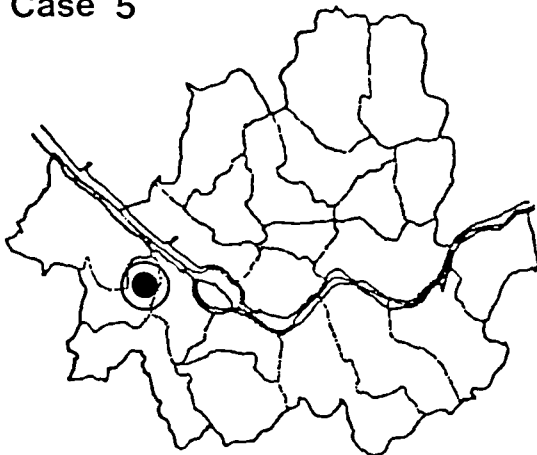
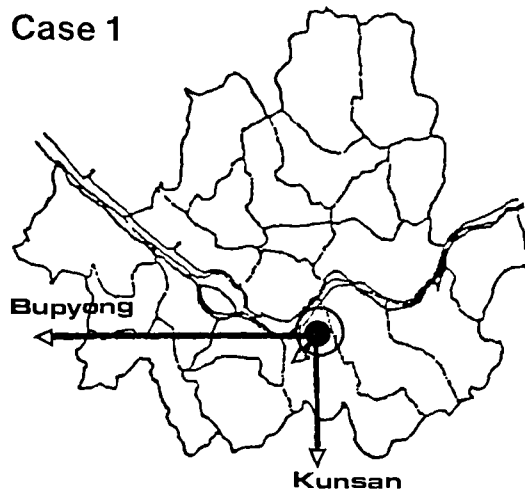


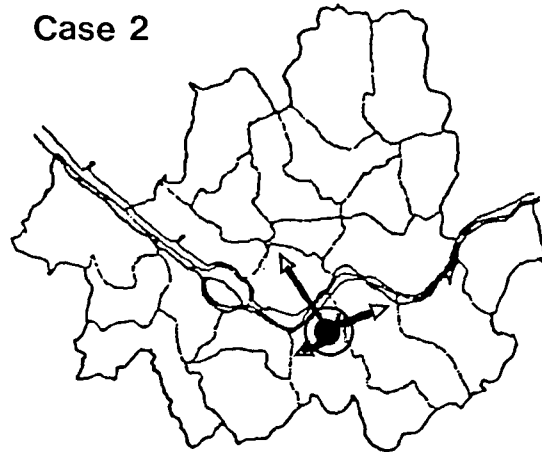
Figure 7.1 The Distribution of the Harvested Vegetables in the Mok Dong Case Site.



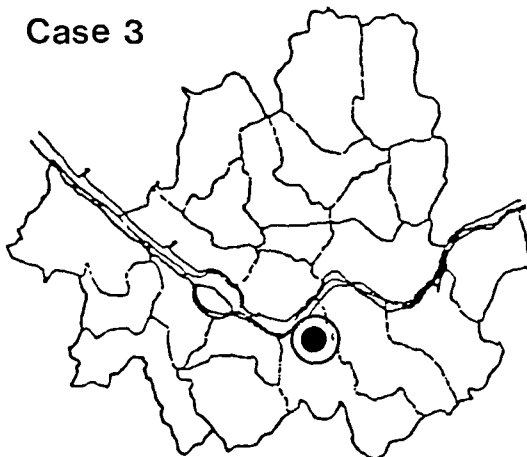
Case 1



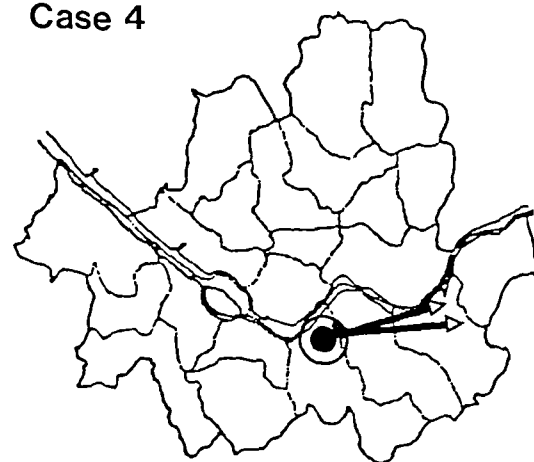
Case 2



Case 3



Case 4



Case 5

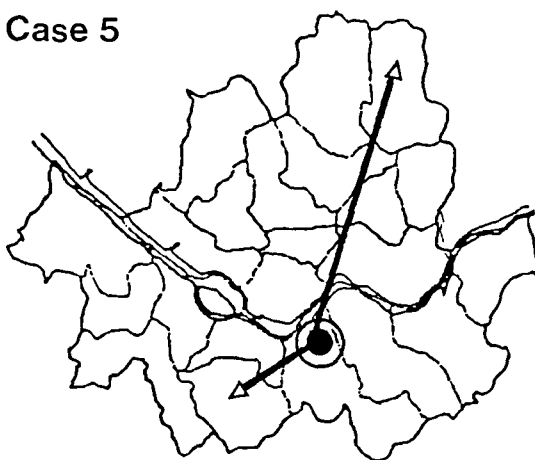
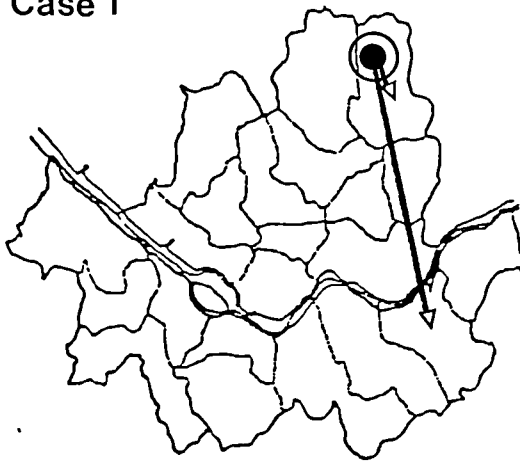
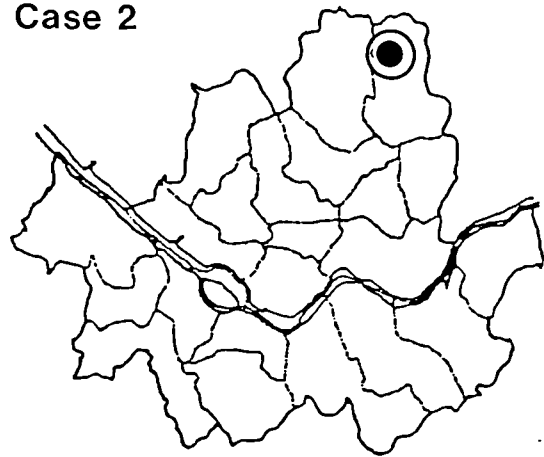


Figure 7.2 The Distribution of the Harvested Vegetables in the Banpo Dong Case Site.

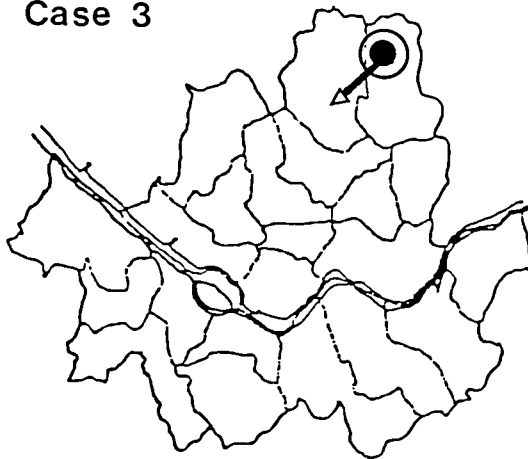
Case 1



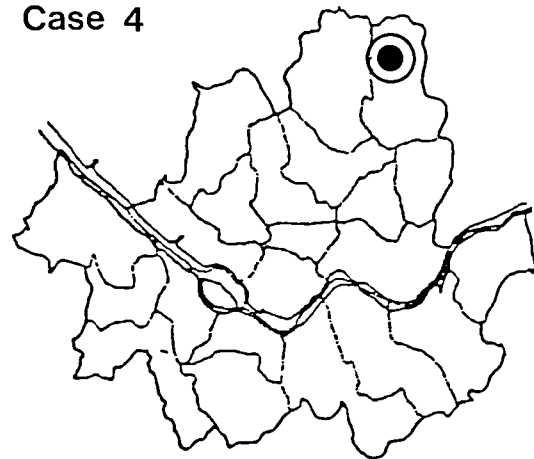
Case 2



Case 3



Case 4



Case 5

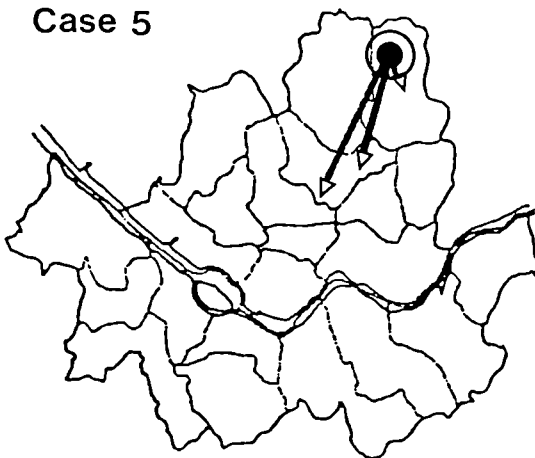


Figure 7.3 The Distribution of the Harvested Vegetables in the Sangkye Dong Case Site.

### 7.6.2 The Criterion of Energy Saving

This section considers such aspects of city farming as the travel time needed for the city farmers to reach their plots from their homes, recycling and other relevant issues. Firstly, the Mok Dong site is considered. All the interviewees arrive at the site from their homes in less than 10 minutes on foot. City farming does not require transportation cost. Moreover, no waste is produced during the farming work on the Mok Dong site. Farmers here sometimes put the leftovers of the harvested vegetables onto the soil to make compost. As in the case of Mrs Jeong, who made a makeshift shed on her plot by using waste materials scattered around the site, most city farmers use every item available around them. The city farmers interviewed use such simple tools as spades, hoes, and trowels. They have not used any farming machines which require fossil fuels. In the city farming activity, there is nothing that can be regarded as a waste of energy. The city farming activity is an activity that saves energy.

The Banpo Dong case site is now considered. Mrs Park needs 10 to 15 minutes on foot to reach the site from her home. Mrs Shin, Mr Park and Mrs Kim all live within five minutes' walking distance from their own plots. But Mr Lee travels from his home to the plot by subway train and it takes about 30 minutes to one hour. In the case of Mr Lee, there is no waste produced from his plot because, for example, stems of green perillas after harvest and weeds are all used for making compost. The only tools used on this site are hoes, spades, and trowels. Finally, in the Sangkye Dong case site, all the city farmers interviewed say it takes less than 5 minutes to reach their plots on foot.

In conclusion, city farming on the three case sites consumes less energy to produce food compared with the market-oriented food production system. City farmers recycle a variety of inorganic waste to make supports and makeshift

sheds, for instance, and use various organic waste to make compost. In the whole process of farming activity, nothing produced can be considered to be waste. Therefore city farming all across the case sites seems to conform to the criterion of energy saving.

### 7.6.3 The Criterion of Self-containment

As recently as July 1992, there were about 50 city farmers on the Mok Dong case site. Before the sewerage facility works on the site started in 1991, there were about 100 city farmers on the site. City farmers were not able to cultivate the site for some of 1991 but were able to resume city farming in 1992. With available space for farming reduced and under unfavourable conditions due to the above-mentioned works and other ongoing building construction on the site, the city farmers on this site now number about 50. Although there is no particular regulation to prevent newcomers from joining in city farming, the number of city farmers on the site has always been subject to natural limitation. The site is now so crowded and fully occupied that it is impossible for anybody else to join. Considering the cultivable area of the site is 17,000 m<sup>2</sup> (see Table 5.2 in Chapter), and if the total city farmers here is just 50, then each farmer can have, on average, a plot of 340 m<sup>2</sup>. This seems to be a reasonable space for each city farmer. Even if there are other elderly people who want to join, there is not enough space for them.

On the Banpo Dong case site, there were about 50 city farmers as recently as July 1992. Although the number of city farmers on this site has gradually increased for the last 15 years, the number appears to be stabilised recently. Mrs Shin gave an example demonstrating the competition for space. An elderly couple who allegedly reserved a plot of about 330 m<sup>2</sup>, and even allegedly paid for that plot to the Korea Land Development Corporation, faced a challenge

from a person who demanded a 50% of the plot. The couple, who once lived in this community but moved out, were supposed to move back the next year. This matter is not a legal one but a personal arrangement, and no other organisations intervene in this kind of matter. City farmers themselves control the proper number of participants in city farming on the site. According to Mr Park, now that there are no unoccupied plots on the site, it is impossible for newcomers to join.

Finally the Sangkye Dong case site is considered. As recently as July 1992, there were about 20 city farmers on the site. This site is now so crowded that there is no room for newcomers. There are a lot of people who want to join, but cannot do so. Even if there were still a small plot left, the present city farmers would not allow local residents or even neighbours to take a plot on the site because they know that this site is now too crowded.

All across the three case sites, most of the city farmers are local residents. They know each other very well. They can check the proper number of city farmers on the case sites. Therefore city farming seems to conform to the criterion of self-containment. The next section summarises the discussions above and links this issue to the next chapter.

## 7.7 ELEMENTS OF SUSTAINABLE URBAN DEVELOPMENT

As discussed in Chapter 3, the types of the model of sustainable urban development, range from the most perfect one which satisfies all the five elements with all the three criteria each, to the least perfect one which satisfies all the five elements with a single criterion each. If city farming on each case site fails to fulfil all the three criteria in any one of the elements, it simply cannot be

classified as conforming to the conditions of sustainable urban development because, in this case, either the "sustainable hut" will collapse at once or can only endure for a short time. The model of the "sustainable hut" was suggested as a theoretical framework with which the thesis has tried to examine the existential hypothesis that there exist the elements of sustainable urban development to which city farming conforms. In the previous sections of this chapter, the five elements with three criteria each have been examined through interpretations, observations and interviews with the city farmers and government officers concerned.

As far as the elements of sustainable urban development are concerned, city farming on the Mok Dong, Banpo Dong and Sangkye Dong case sites seems to conform to the principles of sustainable urban development. However, according to the model of the "sustainable hut", city farming on each case site does not have the perfect form of the "sustainable hut" because it lacks a number of important criteria (see Figure 7.4). Table 7.1 shows the summary of the results of the analysis.

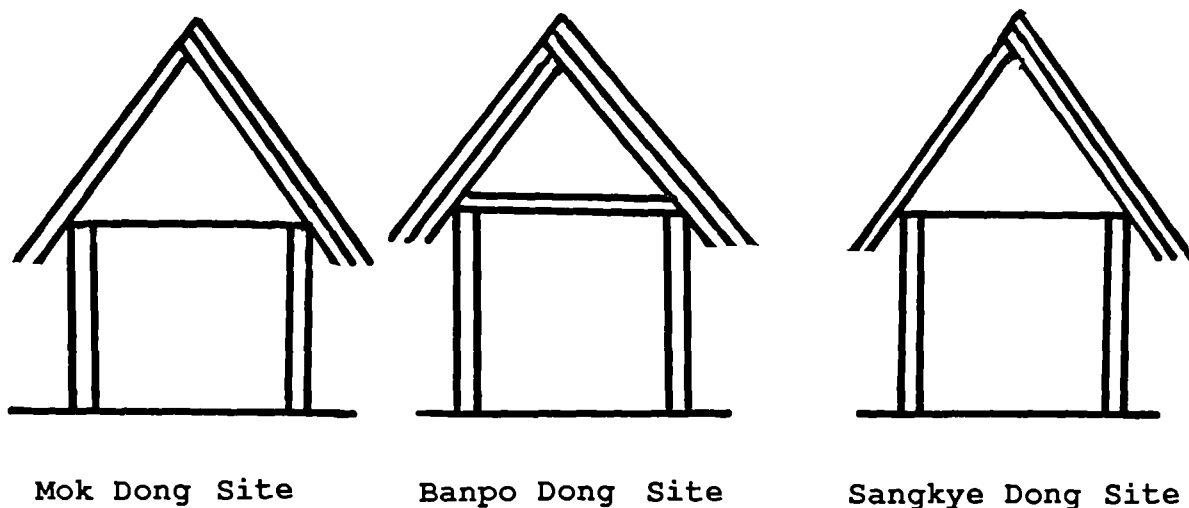
As shown in the model of the "sustainable hut", the essence of the concept of sustainable urban development is in the forming of the priorities of consideration of a project or a social activity. Because development potentiality is limited by the environmental constraint and the two are interlocked, environmental considerations must be taken into account before any development projects are implemented. Moreover, the consideration of "future" must precede any other elements of sustainable urban development. The "future" here should not be considered as the opposite of the past, but needs to be regarded as part of a continuum of time. In order to achieve sustainable urban development, the role of the elderly needs to be appreciated, the present

## Elements of Sustainable Urban Development

**Table 7.1 Analysis of the Elements of Sustainable Urban Development in the Case Sites**

criteria	Mok Dong	Banpo Dong	Sangkye Dong
future generation	O	O	O
present security	X	X	X
elder's role	O	O	O
life-support system	O	O	O
nature conservation	O	O	O
pollution reduction	X	X	X
community decision-making	X	X	X
community information	O	O	O
government incentive	X	O	X
equal opportunity	O	O	O
distributive justice	O	O	O
civil disobedience	X	O	X
local trade	O	O	O
energy saving	O	O	O
self-containment	O	O	O

Note: O = relevant, X = irrelevant



**Figure 7.4 Types of the "Sustainable Hut" for City Farming on the Case Study Sites**

generation's welfare must be secured and future generations' interest should not be compromised.

The environmental quality described in the thesis as "nature" element is as significant as "future" element. Life-support systems must be protected, nature conservation must be promoted and pollution level in the cities must be reduced to achieve sustainable urban development. As far as the case studies are concerned, although city farming contributes to the workings of life-support systems and city farming sites serve as good open spaces, it seems not to contribute to the reduction of the pollution level in the city because of the heavy use of agricultural chemicals and artificial fertilisers. The two elements, future and nature, stand as two pillars of the "sustainable hut".

Furthermore, in the model of the "sustainable hut", the role of participation is emphasised. Even if all the criteria of the future and nature elements were fulfilled, the "sustainable hut" would not be sustainable if there is no political consensus arrived at through participation. The fact that each city is unique in terms of local ecosystems implies that it is necessary to use the local resources, knowledge and skills properly, to achieve the improvement of the quality of life of local residents within the limits of local resource availability. This requires community decision-making because centralised decision-making is limited in its capability to respond to the sheer diversity of local conditions and the unique characteristics of local demand. As revealed in the interviews with public officers, the considerations of public officers are remote from the real life of the local residents.

Only after that, the consideration of socio-economic aspects becomes viable. The model of the "sustainable hut" which has been considered in the case studies reveals that there are structural errors in the administration and land use



planning systems, in the way development is implemented, and in the way planning is practised at least in the case sites. There is no thoughtful consideration of the long-term future and environmental conservation which are fundamental for achieving sustainable urban development. Only economic aspects, such as budget allocation and possible compensation appeals from city farmers, have been considered without regard to social equity and political consensus let alone the future and nature aspects. The erroneous structure in implementing urban development must be redressed to sustain urban future.

The failure of policies shown in the case studies of city farming calls for a new approach which will provide all sectors of society including the marginalised groups of the society with opportunities to realise the real meaning of development. To achieve sustainable urban development is not easy. However, as the model shows, it can be approached in a more systematic way. It is thus essential to focus on the community level based on the cultural, aesthetic background when making sustainable urban development operational.

## 7.8 CONCLUSION

This chapter examined whether city farming on vacant land in the three case sites conformed to the conditions of sustainable urban development. With slight differences among the three case study sites, the city farming activity on each case site showed that it conformed to the principles of sustainable urban development. But as shown in the analogical model of the "sustainable hut", the types of the "sustainable hut" were not perfect needing further improvement. Without positive incentives from the city and Ku government, city farming, which has potential of contributing to sustainable urban development, is now being threatened by new developments as demands for housing, schools, and

shopping centres are growing. Therefore planners' role as architects to build the "sustainable hut" as near perfect as possible must be emphasised. What the case studies and the analogical model imply is that the achievement of sustainable urban development requires a holistic consideration of the social, economic, political, ecological, and long-term future elements. That is the reason why the challenge of sustainable urban development is demanding. In relation to the discussions above, the next chapter deals with the planning implications of the case studies.

# Chapter 8

## *Planning Implications*

### 8.1 INTRODUCTION

The arguments in the previous chapters do not automatically lead to the conclusion that the urban planning system in South Korea has completely failed and that a planning system for sustainable urban development is ready to be implemented. In fact, the case study results can hardly be generalised because they are only related to a particular social activity which is just a part of a social phenomenon as a whole. But what is clear now is that the findings from the particular situation of city farming seem to have a number of implications and could become the inspiration for an alternative planning system. Before reaching the conclusion of this thesis, it is necessary to discuss some planning implications of this research and to consider the possibility of an alternative planning system which can be inferred from the findings.

Environmental planning of Seoul has mainly dealt with the problems of urbanisation in terms of environmental conditions, economic development, structural change of urban form and citizens' social life. The main issues these days are not how to transform and modernise the city of Seoul, but how to manage, how to control, and how to contain the expansion of the city. From this point of view, the principles of sustainable urban development suggested in the previous chapters seem to be useful guidance for an alternative planning system. The city of Seoul urgently needs to develop new social, economic and

political structures to meet the challenge of the current global environmental crisis. Elements of sustainable urban development such as community initiative, the elderly as a resource and self-containment, have always existed in Korean culture, but these were neglected by the planning system as highlighted in the case studies of city farming on vacant land.

This chapter deals with some planning implications of the case studies. It was suggested in Chapter 1 that the idea of sustainable development was a synthesis of the conflict between the dominant mode of totalising modern planning and the challenge of postmodern planning. This perspective forms a starting point for this chapter's discussion about the characteristics of land use and development processes in Seoul in relation to the general principles of sustainable urban development. This chapter thus begins by considering the general criticisms of the modern planning system from the viewpoint of postmodern planning. These criticisms are not of particular planning measures but of the planning system of Seoul as a whole. As a synthesis of the two conflicting planning approaches, the next section draws together the arguments in the preceding chapters and relates the general principles of sustainable urban development to the specific circumstances of land development processes and planning in Seoul. This chapter, then, presents a kind of manifesto to overcome the deficiencies of land development and planning in Seoul and South Korea as a whole which have been discussed in the previous sections. It also discusses a wider area of concerns that emerges from these considerations, focusing on a new approach towards the planning system for sustainable urban development. Finally, this chapter proposes some recommendations on the practical aspects of city farming and a planning system for sustainable urban development.

## 8.2 CRITICAL REVIEW OF THE MODERN PLANNING SYSTEM

Here the idea of postmodern planning as an antithesis of modern planning is presented in its general form. Before discussing this subject, it seems to be necessary to define what exactly the postmodern and postmodern planning mean. In this section, the postmodern is understood not as postmodernism but as postmodernity.<sup>1</sup> There are a lot of definitions for the meaning of the postmodern (see Boyne and Rattansi 1990; Giddens 1990; Featherstone 1991; see Note 1). However, one of the most clear definitions of the concept comes from Dear (1986): postmodernism has three distinct meanings, which refer to an architectural style, a method for literary criticism, and an epoch which means the emergence of a new type of social life and a new economic order. In this section, the postmodern is understood as the third meaning of the term: an epoch. Thus understood, postmodern planning is defined as a strong critical viewpoint against the totalising ideology of modern planning (see Chapter 1). Up to now, the planning system in Seoul has been seen through the way it has related to the city farming issue. Now this section looks at the system in more fundamental and theoretical aspects. This review will justify why and how the planning system for sustainable urban development must be a synthesis for the conflicts between modern planning and postmodern challenge. Before this discussion, the modern planning system in Seoul is briefly presented.

### 8.2.1 Modern Planning in Seoul

As Jacobs (1961) notes there are three main figures in building orthodox modern urban planning: Ebenezer Howard of the garden city, Le Corbusier of the radiant city, and Daniel Burnham of the city beautiful movement. In one way or another, these three traditions of modern planning still dominate urban planning and design of Seoul in terms of, for example, new town development,

high-rise offices and apartment blocks, and master plans. Of course, modern planning does not mean urban design only. In the USA and the UK, these ideas have already been overtaken by the ideas of modern planning process such as social planning, advocacy planning, and incrementalism (see Healey et al. 1982). However, because at least in South Korea who needed large-scale reconstruction projects after the Korean War and a rapid housing and urban development in a short time under the limit of finance, urban planning has always been understood as a way of urban design. Therefore to understand the modern planning system of South Korea clearly and to interpret the basic problems of urban planning in Seoul correctly, these ideas, which have been deeply rooted in the minds of Korean planners and engraved on the urban form of Seoul, must be reviewed.

As far as the garden city is concerned, the principles of the idea have been extensively copied and applied in Seoul and new towns around Seoul and there is scarcely a residential development that does not owe some part of its organisation or appearance to the garden city concept, albeit modified by subsequently developed planning concepts such as neighbourhood units, Radburn principle and land use zoning (see Relph 1987; Hall 1988). Meanwhile Le Corbusier's radiant city concept has also had an immense impact on the urban form of modern Seoul, and virtually all forms of urban design found in Seoul are a combination of these two conceptions in various arrangements. In addition to these, there is a modern planning practice called master planning which was initiated by Daniel Burnham. A city-scale master plan sets out in detail how a city might be at some point in the future, providing a goal towards which development could proceed. These three planning practices are still dominating the planning system of Seoul. There is the other important influence in shaping modern urban form of Seoul, which cannot be ignored: the legacy of Japanese rule between 1910-1945. The urban forms of the city centre in

particular and most parts of northern Seoul are still showing the colonial inheritance and details of these were already explained in Chapter 4 (for more details, see Moon and Lee 1990).

Although there have been a lot of debates on planning practices, there have been few debates on planning theories in South Korea. The reasons are partly because most of the leading planners of South Korea have been educated in the USA which has a very strong planning practice tradition, and partly because the special geopolitical circumstances of the division of two Koreas (communist North Korea and capitalist South Korea) prevented some planning theories such as a Marxist approach from being debated, and partly because the government, preoccupied with rapid economic growth, considered urban space primarily as a base for economic development, hence without examining the relevance of some practices in relation to planning theories.

Korean planning discussion has focused on the ideas of built form, land policy measures such as land readjustment projects, land speculation control, and other growth management tools such as Seoul Metropolitan Area Reorganisation Plan. Those ideas were much influenced by the US, and sometimes introduced via Japan. Planning theories are as important as planning practices, and arguments concerning sustainable urban development could provide a new ground for the debate on planning theory in South Korea. Although there is a considerable amount of literature on planning theory in Europe (see Faludi 1973, 1987; Healey et al. 1982, Forester 1989; Thomas and Healey 1991), there is little literature on planning theory to review in South Korea. Therefore, this section concentrates on the modern planning practices dominating the planning system in South Korea in general and Seoul in particular. These are Land Readjustment Projects, zoning, master plans, national and regional development planning and other land use planning

practices and policies such as Green Belts, new towns and the public concept of land. Before analysing these planning practices and policies in relation to the principles of sustainable urban development, the next section deals with a postmodern criticism of modern planning as a whole.

### **8.2.2 Critical Viewpoint on Modern Planning in General**

Understanding of the differences between pre-modern and postmodern cities requires a consideration of the broader characteristics of societies, and therefore the general social transformations brought about by capitalism. The pre-capitalist city existed in a dependent relationship with the countryside. For instance, the city of Seoul contained by a 17 km long wall for the 500 years of Choseon dynasty (1392-1910) was totally dependent on the surrounding countryside in terms of food, fuels and handicrafts supply. But in capitalism, industry spans the city-countryside division. In this process, differences in modes of social life between countryside and city also become progressively undermined. As far as space is a social, not merely a physical, phenomenon, city and countryside cease to exist. Instead, there is a differentiation between the built environment and the environment of open space (Giddens 1986). The built environment of capitalist societies draws a radical separation between human life and nature. But now people dislike this separation and try to rebuild the relationship through urban farms, eco-parks, wildlife reserves and so on. As discussed in the section of nature element in Chapter 3, there is a growing recognition that urban development must include nature as integral to the city, and cities must not disrupt the workings of the natural ecosystems (also see Chapter 5 about urban farms, allotments and community gardens). The character of urbanism today is very different from that in the pre-modern city, reflecting the profound social changes by capitalism. If big cities of the world show a postmodern symptom in every aspect of the urban life -Seoul is no



exception here- then a question raised naturally is whether the modern planning system is appropriate to manage the so-called postmodern city.

The world core economies, Lyotard (1984) argues, now exhibit a postmodern condition, in which the economic rationality and cultural modernism are widely rejected but have not been clearly displaced by a new aesthetics, a new economics, or a new politics. So it is clear that urban changes must be seen in relation to these major shifts including economic shifts from Fordism to Post-Fordism. Seoul, as one of the global big cities, already shows early signs of these shifts. Trends towards a leisure society, a throwaway culture society and an ageing society might be some of these shifts in the social context (see Chapter 4). Cook (1990) argues that modern urban theory is becoming exhausted and that a new, more appropriate theory of the city is waiting to be born. Cities are now disintegrating into an agglomeration of sites, the city of bits and pieces (see Soja 1989). The logic of postmodernism in urban domain is that the overall management of the complex relationships happening in cities is simply impossible. So, totalising comprehensive methods found in traditional planning such as master plans, zoning, and Land Readjustment Projects may be unworkable, even undesirable in this rapidly changing society.

Here the critical review of the US modern planning is highly instructive to the understanding of Korean modern planning which has been heavily influenced by the US planning system. Diagnosing the US modern planning's incompetence in various aspects, Beauregard (1989) summarises the problems of modern planning in practice, on the one hand, as follows:

The master narrative of modernist planning is incompatible with a spatially problematic and flexible urban form whose articulations are intrinsically confrontational and whose purposes are more and more the ephemeral ones of consumption. Subsequently, a modernist striving for orderliness, functional integration, and social homogeneity is unlikely to succeed, as is the desire on the part of planners to maintain a critical distance and apply technical rationalism.

On the other hand, Beauregard (1989) criticises modernist planning theorists arguing that:

they became highly eclectic, pursuing theoretical projects for their own sake. Collectively they lost the object, the city, that had given planning its legitimacy... they are silent about spatiality and treat planning ahistorically avoiding the task of making sense of the post-Fordist economy and merely focusing on procedural rationality.

At the same time as modern urban planning was under attack from the public for its adverse environmental consequences, it was subject to equally damaging criticism within the academic literature on account of the unrealistic assumptions of the rational decision model. Urban planning, Reade (1987) argues, can never be a satisfactory form of public policy because its scope is too broad to be comprehended by any one kind of expert, because it wrongly assumes that "ought" can be derived from "is". Present planning theories and practices all base their ideology mainly on rationality. But, proposing "planning as debate" as an alternative approach, Healey (1989) suggests that a topdown hierarchical model or a rational-technical planning method is no longer appropriate for accommodating environmental concerns in a democratic way.

This thesis takes postmodern planning broadly to signify a sort of break with the modernist idea that planning and development should focus on large-scale, metropolitan-wide, technologically rational and efficient urban plans designed to manage large-scale urban expansion. Above all, postmodernists depart radically from modernist conceptions of how to regard space. Whereas the modernists see space as something to be shaped for social purposes and therefore always subservient to the construction of a social project, the postmodernists see space as something generated through social relations which emphasise aesthetic and moral considerations as well as considerations of functional efficiency which have nothing necessarily to do with any overarching social objectives (Harvey 1989).

In the postmodern age, there arises the thought that the age of hierarchy is drawing to a close. If modernism is thought to be based on instrumental rationality since the Enlightenment, it can be interpreted in a sense as a forced assimilation to make the different to become the same. If postmodern planning is conceived of as a reaction to modernism, in its process it should allow the difference in urban domain. The modernist city of the unitary plan and the city of property capital have to be reconsidered. So postmodern planning means a planning for locales - for community overcoming the totalising concept of planning. If urban planning is defined as an exercise in community development, additional and more radical possibilities exist. Small-scale planning applications could be delegated to the lower level of local government; more technical assistance could be given to support the activities of local groups. In addition, minimum environmental standards could be identified so that residents could insist that a plan be prepared to ensure adequate improvements to their area (Goodchild 1990).

However, this seemingly attractive postmodern planning is actually reactionary and this challenge must be overcome for a better future. As Beauregard (1989) warns, one should not propose too hastily that planners should resolve the confusion by unconditionally adopting postmodernist alternatives, emphasising the importance of the diversity of community. That needs a synthesis of modern planning and the postmodern challenge. A synthesis is instead required to bring modernism and postmodernism together in a way which secures both change and tradition in urban planning. Thus understood, the application of postmodernism to urban planning would not involve a total rejection of modernity so much as an acceptance of tensions and contradictions which have long existed and yet which are invariably denied by an emphasis on comprehensiveness and technical rationality.

This thesis suggests that it is possible to overcome the modern/postmodern conditions and to search for a new condition for the future urban life. A different sort of planning is now needed for an ecologically sustainable society. It is still believed that planning can improve the future and that the planners can retain aspects of the modernism's rationalist dream, while increasingly grounding their legitimacy on a postmodernist commitment to encouraging many voices to speak. Planning must go beyond the merely technical concerns of infrastructure and land use control so that it can grapple with environmental issues and the management of the public good. Planners must pay attention to the built environment, everyday life, and its historical trends with broad social theories.

To overcome the self-contradictory postmodern challenge and to accommodate still appropriate modernistic planning thoughts and practices, a new approach towards the planning system for sustainable urban development is required. This new approach could achieve a necessary change and the promotion of tradition in urban planning. It is concerned with not just the economically and technologically efficient but also the ecologically sound way of development. For this, it is required to change planners' attitudes as well as the planning system as a whole. The present planning system should be changed to incorporate these social shifts. However, the fundamental elements of planning such as rational decision-making process and a certain system of plan-making should be sustained. The essence of sustainable planning lies in its emphasis on the integration of still applicable some modern planning thoughts and the postmodern challenge. The next section thus analyses some planning practices in South Korea in general and Seoul in particular, which are directly or indirectly related to city farming, in relation to the general principles of sustainable urban development.

### 8.3 REVIEW OF LAND DEVELOPMENT AND PLANNING IN SEOUL BASED ON THE PRINCIPLES OF SUSTAINABLE URBAN DEVELOPMENT

Although there were some variances across the case study sites, it was revealed in Chapter 7 that, in general, city farming in Seoul conformed to the principles of sustainable urban development. However, the present land development methods and the planning system as a whole hardly seem to follow the principles. The three case study sites reflect, directly and indirectly, the vivid history of urban development of Seoul for the last couple of decades. This has involved, as the case studies show, the eviction of squatters and related land policy, the creation of vacant land and land speculation, Land Readjustment Projects and Public Land Development, Partnership Redevelopment, conflicts between developers and the community, and zoning (see Chapters 5 to 7). As far as city farming is concerned, the planning system of Seoul has no positive policies to manage the activity. However, city farming can be either promoted or inhibited by the intervention of the planning system as the case studies show.

As discussed in Chapter 4 the Korean planning system can be classified into three: national land planning, urban planning and individual construction planning. National land planning is composed of four levels of plans: a national land plan, specific region plans, province plans and Kun plans. Urban planning consists of three levels of plans: an urban master plan, an urban readjustment plan and an execution plan. As far as urban planning of Seoul is concerned, a national land plan, a specific region plan called the Seoul Metropolitan Area Reorganisation Master Plan (SMARMP) and an urban master plan are the three basic plans which affect the land use and development of Seoul. Generally speaking, the main tools of land use control in Seoul involve urban master plans, urban readjustment plans, executive plans, regional and detail plans, Ku

level master plans currently being prepared, zoning and Green Belts. On the other hand, the main elements of land development in Seoul include urban redevelopment, Land Readjustment Projects, housing development, new urban street development and industrial estate development (see the 1991 Urban Planning Act). Of course, the elements of land use control affect those of land development and vice versa. Most of these were briefly explained in Chapter 4 and such important elements as LRPs and zoning were dealt with many times in Chapters 5 to 7.

This section thus draws together the discussions in the previous chapters which have some relevance with planning issues, and relates the general principles of sustainable urban development to the specific circumstances of land development processes and planning in Seoul. The principles of sustainable urban development were suggested in Chapter 3 and they were analysed with the case studies of city farming in Chapter 7. Here the elements and criteria of sustainable urban development are once again presented:

**1. Future:**

- a) An activity should not compromise the future generations' interest.
- b) The safety of the short-term future for the present generation should be secured.
- c) Old people should be respected and considered as a resource.

**2. Nature:**

- a) Nature's life-support systems in cities must be improved.
- b) Urban green spaces and natural wildlife must be conserved.
- c) Discharge of harmful pollutants and introduction of some materials which do harm to the nature's ecosystems in cities must be controlled.

**3. Participation:**

- a) In a matter of community development, community members must participate in the decision-making process.
- b) Free communications to improve exchange of information, skills and technologies must be secured.
- c) Effective and intimate relationships between local government and the community must be developed.

**4. Equity:**

- a) Equal opportunities to common resources must be provided.
- b) Distributive justice must be achieved.
- c) Rights should be given to protest unfair systems.

**5. Self-reliance:**

- a) Productive resources of local areas should be devoted to meet the needs of local residents.
- b) An activity should be energy-saving and energy-efficient.
- c) The number of participants in a social activity must be contained under a certain carrying capacity.

In the previous chapters, it was revealed that there were two distinctive modern planning tools surrounding the issue of city farming. They are zoning and Land Readjustment Projects: the former is a typical land use control system and the latter a leading land development method in South Korea. Both of them were discussed in Chapters 4 and 5. These will be further considered in the following sections. This section deals with fundamental elements of urban land use and development process in Seoul. These are LRPs, zoning, master plans, comprehensive development plans at national and regional levels and other important planning practices such as Green Belts, new towns and land policies based on the public concept of land. Before dealing with such fundamental planning practices in South Korea, vacant land and its planning implications are considered because this issue is related to both city farming and other wider areas of planning practice.

### **8.3.1 Vacant Urban Land and Planning**

Vacant urban land has been a continuous concern since the 1970s and has been understood for policy-makers as an inefficient use of resources. As far as Seoul is concerned, it was identified in Chapter 5 that the ill-considered urban expansion (particularly the expansion in 1963) through annexation and boundary changes, the measures of population dispersion policy such as the relocation of the so-called population inducing facilities, a land development

method called Land Readjustment Project (LRP) implemented since 1937 (and particularly in the 1960s and 1970s), and the launch of the first Five Year Economic Development Plan in 1962 all contributed to the creation and continuation of vacant land in the city. The three urban land policies (urban expansion, population dispersion policy and LRPs) are not only the causes of vacant land but also the causes of other problems such as land speculation and poor infrastructure in the fringe areas of Seoul. What all of these policies share in common is that they are growth-oriented measures based on the principle of economic efficiency. In other words, there were no considerations on the future, nature, participation, and social aspects of the measures. Even the economic consideration of the measures is different from the economic element of the model of the "sustainable hut". There were no considerations of self-reliance in terms of local trade, energy-saving, and self-containment. In short, those urban land policies are simply not sustainable.

There is a close relationship between planning and vacant urban land. For example, in the new, fast growing cities along the commuter lines to the Tokyo Metropolitan Area in Japan, at least 10 per cent of land is vacant, where farming and building coexist (Hebbert 1991 p215). This is a result of the planning intervention to draw a line between potential city (Urbanisation Promotion Area) and rural area. Unnecessarily wide inclusion of urban area by annexing neighbouring rural areas leaves extensive land messed up with the coexistence of farming and buildings (see Hebbert and Nakai 1988). Although the case studies of this thesis do not deal with such vacant land seen in the Tokyo Metropolitan Area, the general pictures of vacant land in the fringe areas of Seoul are obviously not so different from those of Tokyo.

As shown both in Chapter 5 in general and the case studies in particular, it is evident that planning has done little to deal with the problem of land vacancy.



Although one of the objectives of urban planning must have been to prevent the increase of urban vacant land for the efficient land use, the planning system in Seoul, in a sense, helped increase the amount of vacant land through the implementation of the ill-considered land development methods such as Land Readjustment Projects coinciding with the rapid urban sprawl to accommodate urban economic growth. What is certain about the phenomenon of vacant land in Seoul is that the land policy itself has played a key role in the creation of widespread land vacancy although it cannot be the case that all the vacant land in Seoul has been created by the land policy measures alone (see section 5.4 of Chapter 5). Planning authorities in Seoul have not recognised the problems of vacant urban land. Therefore the vacant urban land problems have not been effectively challenged or solved.

While not promoting city farming, the city government seems to have been tolerant of city farming. An officer in the Urban Planning Department of the Seoul city government, who was interviewed during the pilot study said that it was a purely personal matter between landowners and city farmers, and a legal matter not a planning one. Concerning vacant land problems, he expressed his view that vacant land as a land bank was so useful and important that it should not be developed hastily - the longer the vacancy the better the land use plan in the future. However, he did not pay any attention to the suffering of the citizens who lived near to vacant sites that were used for rubbish tips or just left idle. Meanwhile, Ku and Dong Offices of the three case study sites tacitly permit the cultivation of vacant land in their jurisdiction simply because to manage effectively the huge sites of vacant land is nearly unrealistic under the present local government system.

In the developing world, great potential for filling in underused space lies in the redistribution of urban landownership through planning and other tools. In

Greater Bombay, for example, 2,000 hectares of vacant land now owned by a single family could house most of the city's squatters, slum residents, and sidewalk dwellers (Lowe 1992 p134; see also Hardoy and Satterthwaite 1989). Many landowners leave well-located sites undeveloped for a long time in order to benefit later from their increasing value as the city grows. For example, before introducing the vacant land tax in 1974 in South Korea, owners of vacant sites in Seoul were not liable for any tax for the sites, and hence they could speculate at will. Even after the introduction of the vacant land tax, landowners still speculated on vacant land capitalising on the loopholes of tax laws. Of course there was a special measure act for taxing on vacant land in 1967, but the rate of the tax was too low to check effectively the overdue retention of the land for speculation.

Environmental consequences of vacant land have also been neglected. One of the negative effects is the visual impact of blight. This kind of environmental consequence is necessarily related to the matter of an economic one because the land vacancy itself induces further degeneration which encourages outmigration and deters people and business from coming into this area. The most important point made concerning environmental consequences is that this temporary land vacancy for the government is, in fact, permanent for the citizens living near to the vacant land. If the element of nature in the model of the "sustainable hut" is included into the consideration of vacant land policy, this should afford many alternatives for the use of vacant land in economically efficient and environmentally friendly ways.

As Pacione (1990 p25) suggests vacant land represents a misuse of land resources, contributes to environmental degradation, underlines the imperfections in the land market, and illustrates the limited influence of planners to positively manage the built environment. Civic Trust (1988) argues

that "waste land is both a problem and asset to the communities that have to live with it". It is a problem of prolonged vacancy, danger and decay, blighting the surrounding area and wasting a scarce resource. It is a psychological problem too, destroying the attraction and confidence of whole communities. But vacant urban land provides a community an unplanned green space, playground, and recreational site. Therefore the challenge for planners is to get rid of the related problems while keeping the beneficial aspects of vacant urban land in order to achieve sustainable urban development. The following sections will review some planning measures which are related to the issues of city farming and vacant land directly and indirectly, and the first one of them is LRP.

### **8.3.2 Large-Scale Land Development By Land Readjustment Projects**

As mentioned in Chapter 4, the first implementation of LRP was in Najin in 1934 when the first Korean City Planning Order was also established. The Order was hastily prepared by the colonial Japanese government for the implementation of LRP in making Najin, a port city, where resources collected in Manchuria could be efficiently transported to Japan, which was mainly for military purpose. Whatever history the LRP has, this land development method has shaped the urban form of contemporary Seoul. As mentioned in Chapter 5, 40% of the whole urbanised areas of Seoul were developed by LRPs. In the meantime, as analysed in the previous chapters, all across the case study sites, LRPs are related to the occurrence of vacant land and city farming in one way or another.

The reasons why it was so popular as a land development method in Seoul can be suggested as follows (Ahn 1993; Mattingly 1993):

Firstly, there is no need to purchase land; secondly, it enhances use value of building plots by re-arranging an irregular pattern of plots owned by many landowners; thirdly, development costs can be covered by selling off reserve land; fourthly, it is good for the government and implementing bodies since it does not require government finance; fifthly, it is good for landowners because land prices as well as use value of their own plots increase; sixthly, the whole system of management is so comprehensive that large-scale control is possible and, therefore, economy of scale can be achieved.

However, there are many disadvantages as well: the process is so complicated that it needs a high degree of technical expertise and lots of experience; the whole project takes quite a long time to finish; it requires land price increases to meet the costs of land development hence inducing land speculation; developers consider land only as a property without taking into consideration the land as a basis of life; top priorities are given to the construction of public facilities such as roads instead of environment conservation and the quality of urban life; in the decision-making process, landowners as well as adjacent people are largely neglected; the whole mechanism has nothing to do with the provision of low-cost land to house the poor, thus serving mainly the upper- and middle-income groups (Kim, I-J et al. 1982 p165); the main beneficiaries are the existing landowners, who may choose to hold on to the serviced plots for speculative purposes rather than to develop them (Kim, Eui-Won 1985). As far as vacant land in Seoul is concerned, it was revealed in the case studies that policy-makers overlooked the side-effects of Land Readjustment Projects paying attention only to the aspect of economic efficiency of the method.

LRPs implemented in Seoul for the last fifty years do not seem to conform to the principles of sustainable urban development. Firstly, there is a long-term uncertainty about the uses of reserve land or deducted land as revealed in the

case studies and a project takes quite a long time to finish, hence having a lot of uncertainties. It is contrary to the principle of present security. Secondly, it has destroyed quality agricultural land in the fringe areas of Seoul without considering the ecological aspects of the land development method. This does not follow the principle of nature conservation. Thirdly, based on the economies of scale, usually the scale of a project tends to be so huge that it contradicts the principles in the element of self-reliance. Fourthly, in the process of project implementation, land is only regarded as property and only economic efficiency of the project is pursued, hence neglecting social aspects of land such as equity and distributive justice, and environmental sustainability. Middle to upper income groups get benefits from the project while the welfare and interest of the poor is not included into its agenda at all.

### 8.3.3 Land Use Control By Zoning

Zoning is a planning practice of allocating different areas of cities for different uses, and it is the basic tool of urban planning in Seoul. Zoning by-laws were first developed in Germany and California in the late 19th century. In Germany, it was used to keep abattoirs out of residential areas and in California for the discriminatory purpose of restricting the locations of Chinese laundries. The take-off for the widespread adoption of zoning came with the passage of a by-law in New York in 1916 (Relph 1987 p67). Since then zoning has been widely used in the US and Europe. In Korea, a zoning system was introduced in 1913 when a set of city street building regulations was formulated under the Japanese rule. The regulations were officially adopted in 1934 when the Korean City Planning Order was promulgated (Seoul City Government 1977). The 1962 Urban Planning Act and the 1962 Building Act followed the basic framework of the zoning system in the 1934 Order. Now the zoning system is so deeply rooted in the Korean planning system that ordinary people regard zoning as a synonym for urban planning.

As already mentioned in Chapter 4, there are four zones such as residential, commercial, industrial, and green zones with each zone having three detailed subzones. In addition to these zones, there are several use districts under the same zoning system. Green zones, for example, were further subdivided into productive and natural zones. Green zones have usually been considered by the planners of Seoul as land set aside for future development. To prevent shrinking green areas, the 1988 Urban Planning Enforcement Ordinance introduced a new subzone category called conservational green zones. However, the fact that until now there has been no single designated conservational green zone in Seoul clearly shows that the purpose of the zoning system is just an orderly use of land without taking into consideration environmental or other aspects.

As far as the case study sites are concerned, many zones and use districts are designated on the same site at the same time: the Mok Dong case site is designated as general commercial zone, urban design district, parking improvement district, and aesthetic district; the Banpo Dong site as general residential zone, parking improvement district, and apartment district; the Sangkye Dong site as general residential zone, parking improvement district. As argued in the case studies, such a zoning system contributed to a prolonged land vacancy. For example, the reasons why the vacant lots of the Mok Dong case site are not properly developed are: firstly the site is designated as an urban design district which requires very strict design standards such as building sizes, uses, and forms; secondly the scale of each building lot is so large, due to the regulation for the minimum area of building lot, under the law, that it is difficult to find potential purchasers who can afford to buy the large lots.

As already discussed, city farming is possible in any of these sites regardless of zoning regulations because city farming is excluded as an object of planning permission under the section 4 of the 1991 Urban Planning Act. However, in relation to city farming, if some animal and plant related facilities such as barns and sheds are built in certain zones, it could be a problem because the 1991 Building Act does not allow these facilities in general residential zones, general commercial zones and other zones. After decades of strict segregation of land uses, there have been some attempts to establish mixed-use zones which can allow a variety of activities. For example, with continuous amendments of zoning regulations, neighbourhood facilities such as retail shops, beauty salons, laundries and sports facilities are now able to be located in any zone (Lee and Kang 1991).

The search for a democratic urban planning process which is an acceptable compromise between the rights of landowners and those of city farmers must be a challenge to which urban planners and those responsible for urban administration and development have to face. Excessive zoning has destroyed the vitality of cities. Mixed uses make for lively and safe environments. It is quite possible to cultivate sites of vacant land in a residential or commercial area under certain control. Considering that city farming in many countries started with squatting and many city farmers are still illegal occupants, it seems that city farming in certain countries is a reaction, implicitly or explicitly, to the rigorous planning systems.

The basic idea of zoning seems to be contrary to the principles of sustainable urban development. Firstly, it seems to be against the conservation of traditional culture. For instance, throughout much of Africa there were well-developed traditional systems of land allocation. Such land allocation systems were often undermined or destroyed by the colonial administrations (Devas

1993). Secondly, the original idea of zoning developed in Europe was based on a belief that improving the physical conditions of urban life would solve social problems. Therefore zoning aims to separate industrial uses from residential ones in order to improve the physical environment. City farming, for example, is not only often penalised by the slashing of crops but also land use allocation and provision of water supply rarely consider the benefits of encouraging the use of urban land for food production simply because it is against the principle of zoning (Rakodi 1993 pp218-9). Moreover, the zoning standards seem to be arbitrary. Sometimes they have been used as an exclusionary device to prevent change and social integration, and sometimes they have been used by developers and speculators to manipulate property values (Relph 1987). For the benefits of urban environmental conservation and distributive justice, this rigorous land use allocation system must be reconsidered. The zoning system also contributes to the social polarisation by its segregation principle, and the present zoning system reflected in the land use planning would further increase the car dependency in Seoul.

Sustainable urban development requires a substantial change of the concept of land. The zoning system is based on the principle of the physical segregation of land use. However, land is not just physical in terms of its area and land prices. The concept of land for sustainable urban development should include soils, plants and other wildlife on the land, and even groundwater and microclimate. In addition to this recognition, as mentioned in Chapter 1, urban land should be understood as a space not only socially produced but also environmentally framed. Because these social and environmental elements cannot be detached from the consideration of land use, all these must be an integral part of land use planning. That fits well in the general principles of sustainable urban development, but is not easily captured in zoning categories. The next section reviews master plans which form the basis for the zoning system.



### 8.3.4 The Dominance of Master Plans

The history of the concept of master plans begins with the Chicago World's Fair in 1893. Daniel Burnham set forth a model of city centre design that could be used to situate public buildings and infrastructure around public space. These all revealed the influence of his impressions of European cities, especially Rome and Haussmann's Paris, where he visited to collect planning ideas (Relph 1987). The layout of the grounds with its grand vistas, superb landscaping and overall cleanliness were the product of a single comprehensive plan. The conclusion to be drawn was obvious: if this was what could be achieved by comprehensive planning then it clearly should be used to make all cities beautiful. In 1909, Burnham published his plan for Chicago. It was the first city-scale master plan, setting out in detail how the city might be at some point in the future, providing a goal towards which development could proceed.

Some of the weaknesses of master planning are (Devas 1993):

1. There is concern with the preparation of a plan document rather than with achieving the contents.
2. The procedure is too comprehensive, covering all possible aspects rather than focusing on key issues.
3. Land use issues are dominant compared to social, economic and environmental issues.
4. The projections of urban population growth and public investments requirements tend to be unrealistic.
5. The plan-making process is separated from decision-making process about budgets, infrastructure development and service provision.
6. Effective mechanism to control land development is absent.
7. A detailed, rigid zoning plan is unrelated to the forces which really shape the city, and which is too inflexible to be adjusted in the light of the realities of the situation.

Having these weaknesses, master planning has been one of the most fundamental planning practices in South Korean cities in general and Seoul in particular. At present, every city in South Korea has its own urban master plan. However, as mentioned in Chapter 4, there was no legally approved urban master plan for Seoul until May 1990. A comprehensive urban plan (1972-1981), which had no legal basis, replaced the role of master plan. There were also the so-called life-sphere plans for the Kus of Seoul as a kind of master plan for each Ku. But the contents of the Ku level life-sphere plans were basically the same all across the Kus regardless of the physical and socio-economic diversity of the Kus. All the master plans of Korean cities also have the same format and contents regardless of the differences of population size and natural environments.

These problems caused by the totalising comprehensive methods of master plans show that they do not fit in the general principles of sustainable urban development. As Rakodi and Devas (1993 p269) argue, if the aim of urban planning is to produce a city where land uses are neatly arranged according to an optimal pattern determined ten or twenty years ago based on a master plan, for example, then the city cannot be managed properly. In the unpredictable, rapidly changing, messy and complex context which is urban reality, a single blueprint plan or set of policies is unlikely to be either desirable or feasible (ibid. p271). This kind of practice cannot conform to the principles of sustainable urban development. This rigid and inflexible planning tool must be reevaluated. However, the principles of city-scale master plans have been widely applied to the national and regional development planning of South Korea.

### 8.3.5 Comprehensive National and Regional Development Planning

Figure 4.2 in Chapter 4 showed the hierarchical system of Korean land use acts. According to the system, the 1963 Comprehensive National Land Development Planning Act (CNLDPA; revised in 1989) and the 1982 Seoul Metropolitan Area Reorganisation Planning Act (revised in 1990) are two of the most fundamental national and regional planning laws in South Korea. A third Comprehensive National Land Development Plan (1992-2001) based on the CNLDPA is now prepared. One of the differences between the third plan and the previous two plans is in its emphasis on the environmentally sound national land development. However, its large-scale plan covering all the national land and its emphasis on the growth oriented strategies show that this plan is still remote from the concept of sustainable development.

As Mikesell (1992 p79) notes, comprehensive development planning, which was so popular during the 1950s and 1960s serving to provide both a political document for Third World governments and an essential step in negotiating foreign aid, has now declined in popularity since the 1970s. The reasons for this decline in comprehensive multi-year planning are: firstly foreign aid agencies, such as USAID (which emphasised multi-year plans during the 1960s), were no longer impressed by the plans; secondly, successive failures of multi-year plans largely destroyed their political value for the government in power (Mikesell 1992 p79). But comprehensive multi-year plans are still dominating South Korea in the areas of economic development (5 years), national land development (10 years), and urban development as a form of master plan (20 years). In order to achieve sustainable urban development, comprehensive national land development must be redirected towards a kind of national land management system. The present national land development planning seems to try make all

the cities and towns of South Korea to have a same urban form which is similar to that of Seoul. The cultural uniqueness of each city and town must be promoted to achieve sustainable urban development.

On the other hand, Seoul Metropolitan Area Reorganisation Master Plan was prepared in 1984 to remedy the side-effects of efficiency-oriented economic growth led by the physical growth of Seoul. During the policy implementation of this master plan, the so-called "industrial relocation" might have discriminated against the marginalised groups such as the urban poor and ordinary workers. In addition, little consideration was given to the households and employees affected by the planning policy. These are contrary to the principles of sustainable urban development in terms of participation and social equity. Moreover, the focus of urban planning should be on the community rather than metropolitan-wide area.

Meanwhile the 1991 Urban Planning Act proposed a new planning system. There are many improvements such as the introduction of the term "the environment" as a subject of planning in the article of the definition of urban planning in the act (Section 2.1). One of the most significant changes is the introduction of regional and detail plans (see Chapter 4). The framework of regional and detail plans is another Japanese version of the originally German idea of planning practice following zoning and Land Readjustment Projects.

The new regional planning system is not so different from other regional planning practices in South Korea. There are already some forms of regional planning in South Korea such as Comprehensive National Land Development Plan, Specific Region Development Plan, Comprehensive Province Development Plan, and Seoul Metropolitan Area Reorganisation Master Plan. However, the new planning system has some distinctive features: specific

regulations on the location of regional facilities and particular provisions on who pays the external costs of certain development are incorporated into the Urban Planning Act; if a local authority needs some bad neighbour developments such as waste disposal operations, sewerage treatment facilities onto another authorities' areas, the local authority who wants the developments should pay for other projects which can improve the environment of the neighbouring authorities to make up for the side-effects of the developments.

One of the most important things in the introduction of the new regional planning system is to clarify the areas of responsibility for the functions of local authorities. Regional functions of urban planning now belong to the upper level of local government such as Seoul and provinces, and central government while other local functions are left to the responsibility of the lower level of local government such as cities, Kuns and Kus.

Although it is a step forward from the highly inflexible modern planning system of South Korea, it still does not escape the iron cage of the modern concept of development. It means that the main objective is still a physical growth of regions and districts. This new regional planning system lacks some fundamental aspects of sustainable urban development. To reduce waste production (criterion of pollution reduction), to encourage local trade (criterion of local trade) and to develop self-reliant cities can help reduce the troubles occurring from the negotiating processes between the conflicting local authorities. This new system must be reevaluated to achieve a sustainable urban development. Until now the main elements of Korean urban planning have been reviewed. The next section finally deals with other equally important but less fundamental urban land use planning practices and policy measures.

### **8.3.6 Green Belts, New Towns, and Land Policy Measures Based on the Public Concept of Land**

In this section Green Belts, new towns and a number of land policy measures based on the public concept of land are reviewed respectively in relation to the principles of sustainable urban development. Together with the previous planning tools, these are crucial concepts in Korean urban planning. All of these were already discussed in Chapter 4 albeit briefly. Some of these are not directly related to the issue of city farming. Although these are not purely urban planning matters, they must be considered here because they are important planning practices in the Korean planning system. Firstly, Green Belts are considered.

Green Belt policy has been one of the strongest land use control measures in South Korea for the last 20 years. The differences between Green Belts and green zones can be presented as follows: Green Belts are permanent conservational green areas while green zones are reserved areas for development; Green Belts are not allowed to develop while green zones are easily available for a variety of development; Green Belts are designated around city boundaries while green zones are around the urbanised areas in cities. Some statistics about Green Belts were already presented in Chapter 4.

Although, generally speaking, the designated Green belts have been relatively well managed, there have been many criticisms of them. For example, Green Belts in South Korea are not "green" in its real meaning. 58% of the area of Green Belts is mountain, while the rest are 28% of agricultural land and 14% of housing lots and others. Because permitted actions are more than 300 in 1992 (which were 27 in 1971 when Green Belts were introduced), illegal facilities such as livestock barns, temporary factories, and villas can be easily identified.

While land which has a real value for conservation is developed simply because it is outside the Green Belts, land which is not valuable at all for environmental conservation is not allowed to develop because it is inside the Green Belts.

Green Belts, particularly those in the SMA, have caused a leap-frogging development, widening the service areas of Seoul, which increased social costs in terms of commuting times and car pollution. According to Kim K.H (1992), 600,000 people, 50% of people living in Kyungki Province (the rest of Seoul in the SMA), were commuting to Seoul everyday in 1987. In addition to these criticisms, unrealistic legislations are the focus of criticisms: for example in some cases, Green Belt boundaries cut across in the middle of buildings; while Green Belt area of Seoul occupies 27.6% of its total area, other satellite cities of Seoul have a higher proportion of Green Belt areas: Hanam (98.4%), Siheung (92.6%), Kwachon (92.1%), Kwangmyoung (76.7%) for example; the growth of some local cities has been hampered by the strict implementation of this land use control policy. The direct effects on the life of the residents in the Green Belts are obvious (Kim, K.H 1992; Yang, B.Y 1992): lower land prices compared with the neighbouring non-Green Belt areas; poor social infrastructure; some bad neighbour developments tend to be easily allowed in Green Belts. On the other hand, there are indirect side-effects: land prices have increased in other parts of the SMA due to the restriction of land supplies. Considering many restriction on the exercise of property rights and building regulations, there must be a policy reevaluation on Green Belts.

It has been proven that the control of population concentration into Seoul, one of the main objectives of Green Belt policy, has failed. The "Belt" neither contained the population of Seoul nor prevented people from concentrating into the city. Although there are a lot of problems for Green Belts, they have a variety of potentials in terms of environmental conservation. Green Belts can be

used as an asset, and a positive policy is required. For a sustainable development of Seoul, the basic principles of Green Belt must be maintained while the complaints of the residents in Green Belts and other socio-economic side-effects must be resolved.

Meanwhile a good deal of effort has been made to build new towns. The original new towns in the UK were directly descended from the garden city movement, thus implying certain aspects of sustainable development (Hall, Hebbert and Lusser 1993). But the reality of the new towns developed in South Korea seems to be remote from the concept of sustainable development. New towns such as Seongnam, Banwol, Changwon, Yeocheon, Donghae were built in the 1970s. They were all industrial towns except for Seongnam which was developed to accommodate the evicted squatters of Seoul in 1973. The population of Seongnam has now reached 600,000. This hastily developed new town has chronically suffered poor infrastructure, and under the pressure of rapidly growing population, the living condition of the city has rapidly deteriorated. Neither the original purpose of this new town nor the crowded living condition seems to be close to the imagination of Ebenezer Howard.

On the other hand, newly built new towns in the late 1980s and early 1990s such as Bundang, Ilsan, Pyoungchon, Sanbon, and Jungdong are all dormitory towns around Seoul. But with its more than 10 million population and with surrounding 13 satellite cities - most of them are dormitory towns - already saturated, Seoul seems to be so near to these new towns that, as many worry, the new towns would further exacerbate the concentration of Seoul. The criticism by Hall, Hebbert and Lusser (1993 p21) of new towns that "new towns have no specific relationship with their surrounding countryside and draw much of the population, industry and financial resources from further afield" makes sense when the situation of new towns in South Korea is considered. In



fact, new town developments of South Korea have not contributed to the dispersion of the population of Seoul. Moreover, these new towns around Seoul are not self-reliant. They are totally dependent on the economy of Seoul. Almost all of the residents in the new towns around Seoul have their jobs in Seoul. This kind of urban development is surely contrary to the principles of sustainable urban development. The reason why these developments are so popular is simply that under the present high land price levels due to the shortage of land supplies and the increasing demands of housing, property developers have reasoned that agricultural land is a kind of empty land or reserve land for development and the development is economically feasible. New town development does not seem to conform to the principle of self-reliance in particular.

In addition to these land use development and control practices, there are a number of land policy measures to control land speculation and solve other land problems. As discussed in Chapter 4, 1.4% of households in Seoul have 58% of private land of the city. Rapid land price increases with subsequent capital gains concentrating on a small group of land owners caused a number of social problems. The land problems not only created an anomalous property market but were also linked to the workers' depressed working spirit and the distortion of income distribution. In these circumstances, a series of radical land policy measures based on the public concept of land was produced by the government. The principle of the so-called public concept of land lies in its strong regulations on the exercise of private property rights. There are three basic acts and a new local tax act, all of which were promulgated in 1989: the Building Lot Ownership Limitation Act, the Betterment Levy Act, the Tax on Excessive Profits from Land Act and a new Local Tax Act which introduced the Comprehensive Land Tax (see Chapter 4).

Although the purpose of the Building Lot Ownership Limitation Act is to prevent excessive landownership and in this respect it has worked as expected, the act has some side-effects in terms of rational urban land development. If the landowners who have building lots above the limits neither submit development plans nor use the lots according to the plans for the portion of the land above the limits within two years of acquisition, local authorities have a right to invite a third party to develop the land. This act as well as other public concept of land acts inevitably encourages an unnecessary and ill-considered development of urban land.

The Tax on Excessive Profits from Land Act has also a number of side-effects. This act has caused an overheated construction boom in the late 1980s and the early 1990s due to the unnecessary development as a way of escaping the burden of taxation. Because 80% of the amount of tax can be deducted from the total amount of tax if the land concerned is either sold or developed within a year of taxation, every sensible landowner has hurried to develop the land.

The comprehensive land tax system has also some problems: firstly, there are too many exemption cases in the name of public interests; secondly, a variety of different rates are applied according to land uses, which could distort the land market; thirdly, to evade the heavy tax, many have hurried to build any buildings on the empty land causing the shortages of building materials and construction workers, and making employees in other industries to demand a sharp increase in their wages; finally, the administrative processes for calculating and collecting the tax are so complex.

Every policy measure has its own limitation. Therefore whenever a land policy measure is implemented, if the model of the "sustainable hut" were applied, this would include at least the five elements of sustainable urban development: future, nature, politics, social and economic aspects. The public concept of land policy as its present form is just the result of a simple combination of politics and economy with no considerations about future and nature. The most important priority has been given to economic consideration for all of the land use and development processes in Seoul. That must be changed for a sustainable urban development. Meanwhile, placing all the costs on property taxes, such as the Comprehensive Land Tax and the Tax on Excessive Profits from Land, may lead local government to act irresponsibly by allowing ecologically undesirable development of valuable open space or by excluding low tax-paying land uses. It must be a challenge to incorporate environmental consideration into a range of taxes.

In conclusion, the review of the modern planning system in Seoul shows that most of the land development methods and land use control measures do not conform to the principles of sustainable urban development. The Korean planning system in general has been unsuccessful in responding to new kinds of environmental concern. Then an urgent agenda is what kind of planning system Seoul should pursue and how to work out a new planning system. The next section deals with a new approach to the planning system for sustainable urban development.

#### **8.4 A NEW APPROACH TO THE PLANNING FOR SUSTAINABLE URBAN DEVELOPMENT**

It is now clear that the present planning system in Seoul is deficient in many ways. Although vacant urban land has been a continuous concern since the 1970s, the planning authorities in Seoul have not tried to solve the problem systematically. On the contrary, in a sense, the planning system in Seoul helped increase the amount of vacant land. The LRPs which decided the urban structure of contemporary Seoul contributed to the occurrence of vacant land in the city. Policy-makers have overlooked the side-effects of the projects paying attention only to the aspect of economic efficiency of this method. As the case studies show the inflexible zoning system also contributed to a prolonged land vacancy. Meanwhile, although the zoning system has achieved an ordered land allocation, it contributed to the physical and social segregation of land use. Urban master plans as well as other comprehensive national and regional plans based on an optimal pattern determined ten or twenty years ago have also been proved undesirable considering the unpredictable, rapidly changing and complex urban reality. Other land use development and control practices such as Green belts, new town and land policy measures have shown many deficiencies because economic and political aspects were top priorities without paying attention to other broader aspects suggested in the principles of sustainable urban development. This section thus deals with a kind of manifesto to overcome these deficiencies.

On the other hand, there are a number of themes emerging from the discussion of planning implications and sustainable urban development. These emerging issues are all related in one way or another. Issues of urban form such as the compact city, diversification of urban space and the self-reliant city, energy, transport and other concepts such as urban rural integration and empowerment

are some of the emerging issues. Based on the principles of sustainable urban development and the review of the planning system in Seoul, this section suggests a new approach for sustainable urban development. This new approach requires some principles: long-term vision and short-term security, environmentally sound urban development, community initiative and government incentive, empowerment of the marginalised, and the self-reliant city. These principles are here considered in relation to the key agendas discussed in the previous sections in particular and broader aspects of urban planning in general.

#### **8.4.1 Long-term Vision and Short-term Security**

The uncontrolled physical expansion of cities has had serious impacts on the urban environment and economy. Cities are often built on the most productive agricultural land, and unguided growth results in the unnecessary loss of land. The highly urbanised residential areas in south Seoul were, just 20 years ago, quality agricultural land. A hasty development also consumes land and natural landscapes needed for urban parks and recreation areas. Once an area is built up, it is both difficult and expensive to re-create open space. This kind of urban development is not sustainable because it does not take account of future generations and the environment. As far as vacant land is concerned, if it is well managed, it can contribute to the welfare of future generations.

Green (1990) notes that "the concept of sustainability has not yet been applied to the built environment, but there are signs that this may soon change". Insisting that there seems little doubt that sustainability is the political direction for the future and its application to both the natural and built environments is inevitable, Green (1990) suggests that the present-day short-term policies represent one of the greatest inhibitions to good urban planning, and should be overcome.

Elkin et al. (1991 p3) argue that

the importance given to the "long-term" is a key feature that distinguishes sustainable development in broad planning terms. If one of our key goals is to carry forward at least a minimum stock of environmental capital, then the short-term planning that characterises modern development and the modern city must be rejected.

The dilemma is, as Holliday (1993) notes, "longer term environmental imperatives - however crucial to life in the future - are cast aside in the search for short-term economic recovery." This dilemma requires an inevitable intervention of planning in both regulating and enabling ways. Under the present uncertainties about the environmental future, one of the best ways of approach is, as city farmers developed their sites by social learning process, learning and adaptation. The present security can be protected by the positive intervention of local government. For example, a temporary lease arranged by local government can help secure city farmers' enjoyment of cultivation in its limited time though.

Meanwhile, one thing which should not be ignored in this consideration is the role of old people in urban society. South Korea has a long tradition of respecting the elderly, and it was deeply rooted in Korean culture. But modern thoughts destroyed this cultural basis. Even in making a city, urban form and scale are only suitable for young and strong men. Wide roads and high-rise buildings are in fact unfriendly to the elderly as well as children and women. However, urban planning in South Korea is still understood as a means of road construction and building modern style buildings. Cities are not just for the young but for all the residents. Furthermore, as discussed in Chapter 5, city farming in Seoul has a long tradition and it has been deeply rooted in Korean culture. City farming is a familiar activity of everyday life for the residents of Seoul. Culturally based, city farming should be promoted for a desirable urban development. Therefore learning from the tradition and respect for the elderly must be a criterion in the plan-making process.

As discussed in Chapter 3, the long-term and the short-term are not opposite but on the continuum of time. While the conventional planning system has considered the short-term future, at most 20 years, a new approach for sustainable urban development must consider a wider time span of the past, the present, and the future at the same time.

### 8.4.2 Environmentally Sound Urban Development

Professional planning is commonly defined as an activity which is concerned with the rational allocation or exploitation of resources for man's maximum short- and long- term benefits. The science of ecology is the study of the basic components of these resources (soil, water, air etc.) and their interrelationships with living organisms. Planning and ecology, therefore, have many common interests and, as such, have long associations with resource management (Roberts and Roberts 1984). Environmental planners believe that since ecology is essentially the science concerned with the functioning of resources, sound planning cannot be achieved without due consideration to ecological information.

It is important to introduce ecological thinking into strategic planning to ensure that a good environment is created and maintained, rather than destroyed by piecemeal built development (Elkin et al. 1991). Hall (1990 p7)<sup>2</sup> outlines the agenda of sustainable development as the first one of six agendas for planning in the 1990s noting that:

number one must be the drawing up of policies that have sustainable development as their central objective. Although everyone now claims to be 'green', it is a concept that, in the main, receives only lip service, and planning has scarcely begun to take on board its implication.

The planning system of South Korea has neglected environmental factors and promoted a wasteful use of energy and raw materials. It is well known that the ecodevelopment concept, which is one of the roots of the concept of sustainable development, was initially developed as a new planning concept. If one of the fundamental and distinctive roles of planning is land use allocation, and if there is a large overlap between the development concept in planning and the definition of pollution in the environment, the environmental problem must have a relationship with sensible land use decisions and with spatial planning. For example, the separation of inconsistent uses can prevent serious environmental problems, or conversely bad decisions can exacerbate or give rise to serious problems (Tromans 1991). In proposing the balance between land use planning considerations and environmental protection, Tromans (1991) argues that pollution control is but one limited facet of environmental protection. Other aspects of the environmental movement may prove still more difficult to assimilate with planning.

If practical ways of sustainable urban development (city farming is one of them) are necessarily related to urban land use, one of the most effective ways of ensuring that sufficient land is set aside for that purpose is through appropriate land use allocation in plan making and the adoption of suitable policies (Johnston 1990). This presupposes a strong political commitment to sustainable urban development such as urban nature conservation. Shortages in local authority funding and the priority afforded to land for housing or other uses hinder such a commitment. Even where land is zoned for commercial use it should be easier to use it temporarily for a nature reserve or a city farming site. Although short-term vacant sites are not suitable, local authorities should streamline procedures so that interested groups can use vacant land as quickly and easily as possible. In Seoul, at present there is no initiative from the local authorities except for the case of Banpo 3 Dong Office in the case study of the



Banpo Dong site. Banpo 3 Dong officers encouraged old people in the community to cultivate vacant sites and provided farming tools cheaply. These initiatives can be further extended to other cases of urban development in a more positive way. For example, obligations can be placed on a developer to carry out extra works, make some payment, or make land available for city farming or other environmentally friendly purposes. When planning permission is granted the local authority can impose specific conditions of positive benefit to city farming.

Environmentally sound urban development also requires the concept of rural urban integration. As Porritt (1986 p5) argues "cities represent the ultimate victory of the technosphere over the biosphere", where ecological processes do not work properly. Howard (1985), who was one of the first to recognise the interdependence of town and countryside, once emphasised the advantages and disadvantages of both town and countryside: the advantages of the city are the opportunities it offers in the form of accessibility to jobs and urban services; the disadvantages can be summarised in the poor natural environment; on the contrary, the countryside with excellent natural landscape does not give the same opportunities the city usually gives.

What Howard actually tried to achieve was the construction of a symbiotic relationship between town and countryside. Finke (1989) explains that:

symbiosis always leads to considerable raw material, energy and transport savings for all participating elements and thus to multiple, usually free benefits. The more differences there are, the more possibilities exist for symbiosis. Symbiosis is therefore favoured by diversity within a small space.

The conventional dichotomies between city and countryside could give way to an integration of the two and begin to establish new planning policies (see Hough 1990). As already discussed in Chapter 5, community gardens in

American and European cities have proved to be a powerful force in neighbourhood change. However, in South Korea, city and countryside are regarded as two separate entities. There is no planning for the rural areas in South Korea. Only urban areas are considered as the object of land use planning while rural areas are regarded just as an empty space. Because rural areas have been regarded as a reserved space for future development, they are easily developed without careful considerations of the side-effects of the development. Urban expansion through annexation and boundary changes, which is one of the causes of vacant land in Seoul, was one of the easiest land development policy options simply because the urban fringe areas of the city were considered as greenfield sites. Economically speaking, the development of rural areas is more attractive than the development of existing urban areas because the land value increases from the development are usually huge (Hall, Hebbert and Lusser 1993 p22).

Moreover, when there are a lot of pollution cases from agricultural activities such as excessive uses of chemicals and fertilisers and livestock related waste, there must be a consistent planning control to these kinds of activities in rural areas in order to achieve an environmental sustainability. Under the present urban planning system in which rural areas are excluded, environmental problems cannot be systematically and effectively tackled. Environmentally sound development requires a view that rural areas are as valuable and delicate as urban areas. In a sense, rural areas including forests are more sensitive and important than urban areas from the point of view of the ecological processes that keep the planet fit for life.

Meanwhile, urban areas exhibit all sorts of environmental pollution. There is no clear-cut solution for all the problems because basically environmental problems are not simply physical, but are deeply rooted in the citizens' life

styles, consumption behaviour, and their worldview. What planning can do to reduce the pollution level in a city is in a sense limited. Environmental planning is understood in South Korea as a planned control of the environment. However, environmental planning should not be interpreted as a planning *of* the environment but as a planning *for* the environment. Pollution abatement can thus be achieved by proper technical and financial support, and adequate land use planning in terms of location, density, and urban design. If the concept of land is extended as discussed earlier in this chapter, urban environmental pollution can be managed by appropriate land use control: proper transportation planning can reduce urban air pollution; a new energy planning in terms of building and urban design can contribute to the quality of urban air (see Owens 1992); sensitive land use planning can protect the quality of drinking water. In short, the criteria of improvement of life-support system, nature conservation, and pollution reduction must be essential for an environmentally sound urban development.

#### **8.4.3 Community Initiative and Government Incentive**

In the model of the "sustainable hut" in Chapter 3, the element of participation was depicted as a beam, a crucial position in linking all the other elements of the model. In the planning system itself, politics is essential. In a sense, urban planning is inevitably a political activity. As Toffler (1990 p245) points out, all the industrial societies already face convergent crises - crises in all their most basic systems: urban systems, health systems, welfare systems, transport systems, and ecological systems. Such problems may not be solved given existing institutions which are designed for the mass society regardless of the value of community or neighbourhood. What is needed is the transformation of society with more emphasis on the value of community, not utopian but practical.

The leading agents of the case study sites played a key role as experts. For instance, Mrs Shin as a leading agent and Mr Park as an active city farmer in the Banpo Dong case site both helped solve other neighbouring city farmers' technical problems, and took the initiative to get compensation for the city farmers on the site when the dispute over the golf driving range development happened. Mr Kwon in the Sangkye Dong case site, as a leading agent on the site, also played a key role in managing the city farming site (see Chapter 6). That implies a possibility that a certain limited area of land use can be planned through community decision-making backed by planners' support to make a community as diverse and lively as possible. One of the most important planning tools for a humane city is a planning process that involves the public. There is already a public participation system in the planning process of South Korea. But the level of the participation is simply to notify the public of the planning decisions. A more positive participation such as a plan made by a community or informal planning acceptable to the authorities concerned would help to avert some of the side-effects of legal planning procedures, and help to address the specific needs of the elderly, the disabled, children, women and other neglected groups.

The whole process of urban planning in Seoul is dominated by specialists, in which decisions are made apart from the citizens. The planners of Seoul worry that democratic decision-making could lead to inefficiency. But the point is that the objective of the establishment of a participatory system in planning is not about economic efficiency but about the transformation of the power structure because there are collective needs which can not be satisfied so long as the decision-making process remains administrative or power-oriented.

Since about 1970, architecture, planning and business corporations have all moved in a similar direction by encouraging greater variety, and

responsiveness to public opinions in landscape making. Community planning is small-scale, local, low-cost and democratic; modernist planning is large-scale, uses national or international models, corporate oriented, high-cost, and its solutions are imposed by experts who assume that they know what is best for residents. Many environmental improvements can be implemented through community-based strategies, which have the benefit of producing rapid results, promoting self-reliance and reducing demand on public services. These strategies need a strong local organisation with the capacity to mobilise and organise the community to adopt environmentally sustainable practices (George 1990). Community-based planning must be part of a new planning agenda which is based on the principles of sustainable urban development. Localism does not guarantee environmental sustainability, but local communities have effective control over the resources for long-term benefit and productivity. Achievement of sustainable development will depend on mobilising the power, resources and capacities of community organisations and non-governmental organisations (NGOs).

A new concept of planning is needed to make the human, capital, and natural resources in the community and the future impact of current actions to be integrated. The residents of the community will be citizen-planners. So sustainable urban planning requires the concept of self-reliance to be shared by the whole community. The remark of Andre Gorz clearly sums up this point (1980 pp76-7):

The neighbourhood or community must once again become a microcosm shaped by and for all human activities, where people can work, live, relax, learn, communicate, and knock about, and which they manage together as the place of their life in common... These new cities might be federations of communities (or neighbourhoods) surrounded by green belts whose citizens - and especially the schoolchildren - will spend several hours a week growing the fresh produce they need... One place for work, another for living, a third for shopping, a fourth for learning, a fifth for entertainment. The way our space is arranged carries on the disintegration of people that begins with the division of

labour in the factory. It cuts a person into slices, it cuts our time, our life, into separate slices so that in each one you are a passive consumer at the mercy of the merchants, so that it never occurs to you that work, culture, communication, pleasure, satisfaction of needs, and personal life can and should be one and the same thing: a unified life, sustained by the social fabric of the community.

Meanwhile, a free information flow is a necessary and important precondition for participatory community decision-making. As discussed in Chapter 7, there was a free information flow between city farmers. Information flows between planners and urban residents are also important. A free information flow is equally important for planners and urban policy-makers. According to Rakodi and Devas (1993 pp272-3), some of the information flows essential for planners are:

1. monitoring of demographic, social and economic characteristics of urban residents, trends in the urban economy, land use changes and physical development
2. monitoring of ongoing operations and programmes for the purposes of day-to-day management
3. evaluation of the outcomes and impact of policies, plans and programmes in order to provide both better knowledge of how the urban system operates and a guide to further decisions
4. consultation with residents to obtain their views on priorities and proposals.

Most governments' (particularly the governments of the Third World) legal and regulatory systems for planning and managing urban areas inhibit and repress the efforts of their citizens to meet their own basic needs with their own resources and organizations (Hardoy & Satterthwaite 1989). The work undertaken by informal community or neighbourhood organisations in providing basic services and site improvements for themselves, when official agencies refuse or neglect to do so, is a good example from which governments

can learn much. Although there was a small possibility of government incentive for a community activity in the case of the Banpo Dong site, other case sites showed the ignorance of and indifference to the community activity.

Hardoy et al. (1992) provide a number of examples of city farming in many Third World countries where public authorities can promote the activity. Particularly in China, the positive policies and encouraging attitudes of local authorities have greatly enhanced the role of city farming in many cities (ibid. p138). With a huge amount of vacant land left idle, Seoul must be one of the best places for such policies to be introduced.

New systems of administrative practice, new values and priorities for city budgetary allocations will have to be accepted by central and local government in order to include city farming into the present planning system. The criterion of government incentive can only be implemented through securing local government's enhanced autonomy from central government. More autonomy is needed in decision-making and finance allocation in order for local government to give proper incentives to the community members. It is also important that officials in local authorities are aware of the changing public opinions. Many local authorities resist bold planning decisions because of unfounded fears about public grievances and public reactions.

Many of the choices that citizens make, such as whether or not to drive a car, can be influenced by government policy about whether or not to build more cycle lanes and public transport system. It is not reasonable to appeal directly to citizens to think of the problems of cars in relation to urban environmental problems.<sup>3</sup> This is why government supports are indispensable for the achievement of sustainable urban development. Not only in a matter of transport but also in terms of nature conservation in a city, local authorities can

influence in many ways: refusal of planning applications; tough conditions on planning permission; development agreements; compulsory purchase, for example.<sup>4</sup>

Sustainable development is not about a simple adjustment of policies but about a substantial change of socio-economic system at every level giving a higher priority to planning and community. One possibility is for local government to help create community organisations because these organisations could be better in managing the complex urban environmental problems.

#### 8.4.4 Empowerment of the Marginalised

It might be wrong to see city farming just as an urban food supply system or as an element of urban ecology. The main cause of this activity is socio-economic and this subject should be approached through the concept of social space. There is a missing dimension to date in urban planning. Many have argued the importance of ecology in land use planning decision-making, but few have suggested the significance of space in which social relations have been embedded. Despite the importance of socio-economic implications of city farming on vacant land, there has been little research into the subject.

Many cities in the Third World as well as those in industrialised countries face such problems as deteriorating infrastructure, environmental degradation, and inner city decay. Particularly in Third World countries, the sustainable development of cities will depend, argues WCED (1987), on closer work with the majority of urban poor who are the true city builders, tapping the skills, energies, and resources of neighbourhood groups and those in the "informal sector".



Referring to the concept of synergism, La Court (1990) offers a few examples for achieving sustainable development in the real world. One of the examples related to city farming is introduced by him as follows (ibid. p137):

In several countries farming within the boundaries of the cities is being promoted. People are growing vegetables in the slum areas. The impact is enormous. The vegetables demand taking care of the land, hygiene, social control. They mean food, income, and also less dependence on food from the market. They provide insurance in bad times. They bring health since the food is rich in nutrients, and that means less dependence on medicines, more income and less risk.

As the case study results show city farmers are one of many marginalised groups neglected and discriminated against by society. For sustainable urban development, it is a prerequisite to empower such groups. This argument is related to the elements of nature and participation and particularly the elderly's role in the element of future. Empowerment of the elderly as well as women is one of the most effective ways to achieve a sustainable society. As shown in the case studies, the elderly are important environmental resource managers. Cooperation between NGOs is another important aspect of empowerment for sustainable development.

Sustainable urban development takes care of people and their environment rather than production increase and market profitability. Sustainable urban development is a process to empower the powerless groups in a community through their participation in socially and politically relevant actions (see Friedmann 1992). Particularly in a rapidly ageing society like South Korea (see Chapter 4), how to provide work or other meaningful social activity to the elderly is, along with the issue of feminism, the most important social issues for constructing a sustainable urban society. In a society where a half of its members are neglected and about 10% of its members with considerable experience and knowledge are silenced, it is impossible to pursue a sustainable society.

The marginalised groups in urban society should be empowered not only because to neglect them is socially unjust, but also because, in the end, they really help improve the general quality of urban environment. The poor, for example, are the most vulnerable from the environmental degradation, but they are the precursors of remedying the damaged urban environment. For the marginalised to gain equal opportunities to common resources, a right should be given to them to protest an unfair system. As the case study of the Banpo Dong site vividly showed, the actions of civil disobedience finally disrupted a golf driving range development which was not acceptable for the community. These actions should be promoted for sustainable urban development.

#### **8.4.5 Self-reliant City**

Satisfactory urban development requires forms of economic activity in which demands for goods, services and employment are met without leading to environmental degradation or resource depletion. It requires the identification of environmental constraints on human activities in cities. A new form of planning is necessary to achieve this kind of sustainable urban development, but there are yet no specific tools to achieve this end.

The principle of local trade requires that citizens change their habits in shopping and leisure activities. It can be recommended to buy local products. There may be some criticisms of this proposition since it would limit the consumers' freedom of choice. As far as this principle is concerned, however, planning can contribute in several ways:

Firstly, planners can discourage the development of urban fringe large-scale markets which induce unnecessary traffic, hence waste of energy by refusing or enhancing the conditions of planning permission.

Secondly, planners can encourage the establishment of small-scale workshops in local communities, which do not produce any serious environmental pollution.

Thirdly, planning acts and system as a whole can guarantee a mixed land use development to help establish small-scale workshops, for example.

As far as the criterion of energy saving is concerned, city farming is not only energy saving but also energy efficient. City farmers in Seoul do not use any kind of fossil-fuel in their farming activity. All their activities including recycling of waste materials contribute to energy saving. The issue of energy saving is also related to the criterion of local trade. Energy is heavily used for almost all goods traded in a city in the process of production, processing, packaging, storage, transportation, distribution, and advertising. Therefore to buy locally produced products can contribute to the savings of energy. The great proportion of energy is used in a city for heating and cooking in the individual household and transportation. The efficient use of energy in a city is also a matter of building regulations such as insulation and urban design and urban land use planning in general (see Owens 1992).

The other important issue relating to a new planning system for sustainable urban development is transportation, which is also related to many other principles of sustainable urban development such as present security, pollution reduction, government incentives, local trade, energy-saving, and self-containment. Planning about movement and accessibility has widely been underestimated in urban planning process simply because this area has been believed by the majority of Korean planners mainly as a matter of engineering independent of other planning considerations. This kind of view must be changed, and transportation must be an essential part of planning consideration for sustainable urban development.

The issue of energy is inevitably related to that of urban form. One of the most important issues about urban form in relation to the principles of sustainable urban development is the diversification of urban space. Richness and variety of the physical and social environment seen in the case of city farming, for example, must be the goal of urban planning and design for sustainable urban development. There has been little research into the uniformity of the physical environment and its social and even genetic effects (Dubos 1970). However, Mumford (1970) once said in his book *The Myth of the Machine* that "if man had originally inhabited a world as blankly uniform as a highrise housing development, as featureless as a parking lot, as destitute of life as an automated factory, it is doubtful that he would have had a sufficiently varied experience to retain images, mold languages, or acquire ideas". Dubos (1970) answers his own question "Will man adapt to megalopolis?" by insisting that although it could be a little inefficient, to avoid the uniform surroundings and to create as diverse an environment as possible should be the right way.

Arguing for the diversity of city, Jacobs (1961) suggests four conditions for this: the need for mixed primary uses; the need for small blocks; the need for aged buildings; and the need for concentration. City farming sites or natural reserves can be added to the conditions for a more diverse and environmentally friendly city. One of the significant factors for sustainable urban development is a mixed land use. This enables the introduction of CHP (Combined Heat and Power), for example, to be applicable. The present land use of Seoul, however, is mutually exclusive from each other due to the strict zoning regulations and that is not a way of sustainable urban development. With class and race discriminatory aspects of its original implementation in Europe and the US, the present zoning system in Seoul as the basic land use tool must be reevaluated. An alternative is not yet emerging but the land use practices surrounding city farming seem to give a possibility for that alternative.

From the point of view of neo-classical economics, the larger the market, the better the economy, where production and consumption are separated: factories and fields are places for production while households and communities are places for consumption. But as the case studies show, city farming is both production and consumption, work as well as leisure. Here the dividing lines disappear. As discussed many times in Chapters 3 and 7, a self-reliant city must be planners' goal. A self-reliant city naturally requires a certain degree of compactness, not crowded but efficient in its economic and ecological meaning. It can be an advantage that cities concentrate consumption and degradation in a small area, as this form allows cities better chances for recycling, reuse, and conservation (Holmberg et al. 1991). Dantzig and Saaty (1973) list the advantages of compact city: saves money; conserves the use of time and land; saves lives; conserves use of energy; and eliminates air pollution, for example.

The compact city makes public transportation run profitably discouraging people from using their own cars. Contained urban settlements at moderate densities can be environmentally more friendly than dispersed low-density urbanisation, so that people can walk, cycle, and use public transport instead of the polluting motor-cars (Hebbert 1991 p215). A Green Paper by the Commission of the European Communities (1990) relates the environmental sustainability of the city with the question of quality of life. The Commission suggests that the solution is to promote the high density, compact city as both energy efficient and socially desirable (see Breheny 1990). Urban compactness is a necessary though not a sufficient condition for sustainable development (Hebbert 1991 p215).

However, there is some controversy over this issue (see Breheny 1992): perhaps the compact city is not energy-efficient; perhaps it undermines further greening of cities. As Ward (1993 p119) quotes Bookchin's observation,

"To maintain a large city requires immense quantities of coal and petroleum. By contrast, solar energy, wind power and tidal energy reach us mainly in small packets. It is hard to believe that we will ever be able to design solar collectors that can furnish us with the immense blocks of electric power produced by a giant steam plant... If homes and factories are heavily concentrated, devices for using clean sources of energy will probably remain mere playthings..."

There are still many uncertainties about the relationship between urban form and environmental improvement. Therefore this author prefers to use the term self-reliant city instead of compact city.

Meanwhile, population control of Seoul should be a continuing agenda for the planners of Seoul. This should be based on the criterion of self-containment: the control of the number of participants in a social activity under certain carrying capacity. As a matter of fact, population dispersal policy has been one of the main planning objectives of Seoul for the last 30 years.

There have been a number of policy measures to solve the problems of population concentration in Seoul focusing on Seoul and the SMA: to limit the construction of certain population inducing facilities in Seoul; to disperse the facilities out of Seoul; and to redistribute manufacturing factories to the other areas of the SMA. All failed. As shown in Chapter 4, population has kept on growing and the environment deteriorating. The solution must be found in the local cities of South Korea. Local cities' carrying capacity in terms of job opportunity and entertainment and cultural vitality should be improved. At the same time, the communities in the local cities should be protected to contain their proper population levels. In this case, the communities of Seoul should also be encouraged to flourish. The newly reinstated local autonomy system of Seoul will surely contribute to the development of community level activities.

#### 8.4.6 Planning For Sustainable Urban Development

Planning for sustainable urban development needs to secure the harmony of the elements of future, nature, participation, equity, and self-reliance, which can help promote people's quality of life both for the present and future generations. However, the elements of sustainable urban development are not sufficient but necessary conditions for a desirable urban future.

In the case studies, it was revealed that there were no relations between city farmers and local authorities, and between city farmers and landowners. As argued in Chapter 6, planners should play a key role to remedy the faulty structure of relations and to facilitate the relations among all the participating actors. Planners equipped with a variety of expertise about urban ecology as well as the complex legal and planning systems should play a key role for sustainable urban development.

As the model of the "sustainable hut" implies, planners are architects in building a sustainable urban society. Planners build a "sustainable hut" to serve people, for the promotion of the quality of life of the present and future generations. What all the issues surrounding city farming in Seoul imply is simply that planning is not taking into consideration the changing society, and not adapting to new conditions. City farming in Seoul seems to be a symptom which indicates the ill-managed use of urban land. Furthermore, as the model of the "sustainable hut" vividly reveals, when applied to the practical aspects of land development and planning processes of Seoul, there were structural faults in the system as a whole, in the way urban development was implemented, and in the way planning was practised in Seoul. Planning for sustainable urban development means to empower the neglected and marginalised sectors to contribute to build a sustainable society.

However, the contribution planning can make to achieve sustainable development is rather limited. The significant features are not to be found in the matters of urban form, transport and energy, but rather in the citizens' attitudes and their behaviour, and the attitudes and behaviour of firms and public agencies. That is the reason why culture is the ground in the model of the "sustainable hut". As mentioned in Chapter 4, urban forms of Seoul have changed as the dominant ideologies have changed since 1394. But since the beginning of this century, the urban form of Seoul has begun to become detached from the cultural life of Seoulites. The urban form of Seoul is now not different from other big cities all over the world. The citizens' culture and history must be valued and reflected in the urban form of Seoul. A sustainable culture is necessary before some kinds of new planning policies are realistically applicable and feasible.

The criticism of growth-oriented economic policy and modern urban planning does not mean the present planning system should be totally rejected. On the contrary, sustainable development will require much more planning than before. A planner who is in pursuit of sustainable urban development should be responsible for the people concerned, but not for his/her authority. There must be a new planning system where a new paradigm of development is implemented tackling big urban problems by thinking small as in the case of city farming.

The South Korean planning system has generally ignored the five elements of sustainable urban development: future, nature, participation, equity and self-reliance. This thesis has argued that the possibility of a sustainable urban development depends on how the five elements can be incorporated into a new planning system. At the moment, most of South Korean cities as well as other World cities take in raw materials and finished products from all around the



world, consuming and dumping them. So the elements of nature and self-reliance must be taken seriously to solve this problem of an open-loop system (see Smit 1989). Only economic aspects such as urban economic growth and financial feasibility have been considered in the urban development processes of Seoul without regard to social equity and political consensus, let alone the future and nature aspects discussed in this thesis.

Environmental problems are the outcome of an individual's actions multiplied many times. This fact gives a headache as well as a hope, a crisis as well as an opportunity. Many changes in environmental behaviour do not need to pass through every level of the planning system to become effective. Anybody can change their own behaviour as an individual or as a member of a community. The bottomline is that it is not necessary to wait for a catastrophe before action is taken. City farming on vacant land is just one example of those possible actions. The thing left for local government, or more precisely for the planner is to facilitate that kind of rather radical, more democratic, therefore more sustainable activity, to save the deteriorating urban physical environment, and to help reduce social and psychological burdens for the socially marginalised people.

Alongside an individual's action, there must be a structural change. At the moment, the weakness of access to information, the failure of cooperation among natural scientists, planners, and decision-makers all contribute to the deteriorating environmental conditions in cities (see Douglas 1983). To stop the environmental degradation, a system that incorporates the principles of sustainable urban development, argued for in this thesis, must be developed.

As Hambleton (1983) suggests, modern planning systems are fairly closed systems which actually hinder any radical challenge to established power structures, although some planning systems offer new channels of empowerment for the previously neglected groups. More strengthened authority given to the Ku government in Seoul does not necessarily ensure that policies are implemented in a more democratic way through the planning system. If planning is to play a leading role in the future, it is only possible by understanding the changing relationships between the nature and extent of demand on the one hand and the combined resources of people and the government on the other.

An agenda for the planning system for sustainable urban development is how to change the planning system structured intrinsically for the vested interest to a system which is open to the marginal groups- the poor, the elderly, women, children, for example. The erroneous structure in implementing urban development of Seoul must be redressed to sustain the future of the city. Having said all of those issues surrounding planning implications of this research, this chapter has not yet suggested a clear alternative. The quest for the alternative must be a challenge, a challenge particularly for a newly industrialised country like South Korea which needs both economic growth and environmental conservation, and for a big city like Seoul which has cultural vitality as well as urban malaise. Considering all the arguments in the previous and this chapters, the next section suggests some recommendations on city farming in particular and urban planning in general.

## 8.5 RECOMMENDATIONS

The criteria of sustainable urban development developed in the thesis still present much scope for further debate and have to be further refined. However, if better criteria can be developed, the analogical model of the "sustainable hut" could be fully utilised to analyse certain projects, and it could be an effective tool for policy decision-makers and planners. The arguments presented in the thesis just pave a way for debating alternative strategies for future cities. The thesis does not provide a solution but offers a chance of debate believing that the quest for sustainable urban development is valuable and achievable. It offers a set of principles from which policy-makers can evaluate their policies and urban designers can assess their alternatives.

According to the evaluation in this thesis, the urban planning system in Seoul has many deficiencies. As far as city farming is concerned, the promotion of city farming should have a key role in a sustainable urban planning in contemporary Seoul. So this section provides an example of what could be done. But the analysis in this thesis shows that a number of key shifts will be needed in the Seoul planning system to promote city farming. Furthermore, the analysis in this thesis identifies key actions needed to make Seoul urban planning more sustainable. Therefore this section now summarises these actions as recommendations.

### 8.5.1 Recommendations on City Farming

Before introducing city farming into formal urban plans in Seoul, there needs to be a widespread consensus about the value of city farming for the community and for the city as a whole. Although city farming has such benefits as education and recreation, little knowledge is available about the relationship

between city farming and urban ecology. Therefore more in-depth research is needed to find out how city farming can contribute to the workings of urban ecosystems.

Finding a suitable site is one of the biggest obstacles to setting up city farming. The ideal place for city farming must be located near to a densely populated area, and the size of which should be fairly large. A difficult thing is that vacant land in urban areas is usually reserved for development or being threatened to be shrunk. So in some cases, city farming sites can be created on derelict housing and industrial sites, on underused recreational land and disused agricultural land on edges of towns and cities or even in Green Belts.

In such circumstances, it can be recommended that a group of would-be city farmers in a community obtain permissions from firstly the landowner and secondly from the local authority concerned to use the site (for a typical licence form in England, see Appendix E). Chapter 5 which dealt with the legal aspects of city farming, clearly explained that city farmers do not need to apply for planning permission to cultivate vacant land and concluded that city farming was not illegal at all from the point of view of planning acts. But the lease or licence should be for as long a period as possible. If only a relatively short lease is available, it is recommended to look for a more permanent site while using the present site temporarily.

If local authorities could give security of tenure for at least 2 years, for example, to a group of applicants who would like to use a vacant site, it would be better than leaving the vacant land unsightly, derelict and unused. For the purpose of this arrangement, the Seoul city government would have to compile a register of vacant urban land, including the classification of cultivable and uncultivable land. The city government, then, could issue a license to permit the temporary

use of the vacant land to a community group who would organise the city farming activity. Furthermore, the city government can publicise this to encourage more people to join city farming.

A method similar to the method of Partnership Redevelopment used in the redevelopment of the Sangkye Dong area (see Note 4 of Chapter 6), can be applied to city farming:

- 1) city farmers form a community association to negotiate with a Ku authority about paying a nominal management charge to the Ku authority;
- 2) owners of vacant land may extend the land vacancy without regard to the laws controlling vacant land otherwise they ought to pay high rates of vacant land tax;
- 3) the Ku authority can maintain the vacant land clean and green without spending extra public finance using the power of the community self-help.

Local authorities need to intervene in city farming by prohibiting farming in dangerous sites, limiting the use of certain toxic agricultural chemicals, and giving technical advice to city farmers. City farming, as an organised community action, can prevent many of the harmful environmental impacts that vacant land often makes. However, a precondition for growing food in Seoul must be the reduction in pollution, so that the food that is grown is uncontaminated. Currently, some food cultivated in a certain area is potentially dangerous because of the level of pollution. For example, city farming sites such as roadsides, dry river-beds and rubbish tips are unsafe for the likely health hazards to the consumers of the harvested vegetables; chemicals and fertilisers applied to the vegetables are overused. Regulations to control these side-effects and others can surely make city farming as a desirable form of urban activity for sustainable urban development.

Therefore city farming on dry river beds and dumping sites or close to polluting factories and next to main roads should be avoided because these places are very vulnerable to air, water and other pollution. Environmental factors such as solar radiation, temperature, rainfall, soil moisture and nutrient either promote or restrain the growth of vegetables cultivated in urban areas. Areas exposed to industrial emissions or air pollution from heavy traffic are generally inappropriate for growing food. Thoroughly washing grains, fruit, and vegetables may remove airborne pollutants, but not soil or waterborne lead and other heavy metals that have moved through the plant and concentrated in edible fruit, roots, or leaves. Therefore research into the ecological aspects of city farming must be followed. Where agricultural extension is available, people can request a soil test to determine if the plots they want to cultivate are safe. In mildly polluted areas, low levels of airborne dust and particles can be screened by planting trees and other nonfood plants around food crops.

At present, too many chemicals and fertilisers are applied to the vegetables grown on the city farming sites in Seoul. The use of chemicals must be controlled and for this, agricultural extension for city farmers should be established. Agricultural education for city farmers includes not only the proper use of chemicals but also technique or organic farming method suitable for the urban environment. To prevent the loss of crops by theft, fences around sites are recommended. Water supply should be secured in any possible way.

The layout of a city farming site and the allocation of plots should be planned. This plan can be prepared by all the members of the city farming site. For this purpose, a management committee is necessary to take responsibility for allocating the plots and the management of water supply and fences to keep the site in good order. In designing the layout, it is recommended, as far as the site

is large enough, to include ecological parks, nature reserves, and playgrounds, for example, in combination with the city farming site.

It is recommended that city farming should be publicised locally, and organisers of city farming should try to get some help with tools and other things from local firms and other community associations. Children in the community can be encouraged to participate in the farming activity if possible. If a planning application for a particular project is pending, local authority can suggest the applicant set aside part of the site for city farming in return for giving conditional permission.

As long as strong planning controls keep land values down, urban areas are the ideal location for city farming: higher ambient temperature due to the urban heat island; more carbon dioxide in the atmosphere, which enhances plant productivity, for example (Elkin et al. 1991). City farming could become an important component of urban development and make more food available to the urban poor as well as the rich. City farming can also provide fresher and cheaper produce, more green space, the clearing of garbage dumps, and recycling of household waste (WCED 1987).

Many recommendations have been suggested on the practical aspects of city farming. But a number of key changes will be necessary in the Seoul planning system to promote city farming. The next section recommends key actions to promote city farming and further to make Seoul urban planning more sustainable.

### 8.5.2 Recommendations on Urban Planning

Current research and projects concerning urban planning should put the principles of sustainable urban development high on the agenda. The full range of urban policy which shapes the present framework of urban development should be reassessed for its effects on the urban natural environment in general and the quality of citizens' life in particular. But what is also necessary for achieving sustainable urban development is to have plenty of well trained environmental planners who have been taught the principles of ecology and who can translate these principles into practical urban environmental planning.

The value of urban nature should be taken into account in planning. Urban development need not necessarily lead to the destruction of urban nature. With some careful consideration, for example in the redevelopment of a certain area, urban wildlife or semi-natural habitats can be promoted. Some waste land with ecological value should not be hastily developed, but should be protected as an unofficial open space which can be used as education and recreational sites for citizens. Some unofficial open spaces such as disused sites and marshes should be included in urban development plans as sites of urban nature. It is also recommended that nature conservation should be amongst the stated aims for the development of a site. Developers should be informed of the possibilities for nature conservation of the site, who then, with some incentives offered, should be persuaded to take positive steps to promote nature conservation. In order to promote nature conservation in Seoul, it is recommended that local authorities should refuse planning applications which would have negative effects on the workings of life support systems in the city. Local authorities can also impose tough conditions on environmentally unsound projects when they are permitted.



At present there is no statutory planning for rural areas in South Korea. Rural areas must be included into the present urban planning system because rural areas are more sensitive and more important than urban areas from the point of view of life support systems. There must be a consistent planning control to regulate some negative effects from a variety of agricultural activities in order to achieve an environmental sustainability.

Small-scale planning applications should be delegated to the lower level local authorities; more technical assistance should be given to support the activities of local groups. Instead of relying on the institutionalised public participation system, planners of Seoul must be involved in various community initiatives from the earlier stage of the actions. In addition, minimum environmental standards must be identified so that residents can insist that a plan be prepared to ensure adequate improvements to their area.

As far as LRPs are concerned, a new version of LRP implemented in a smaller scale could be tried with much emphasis placed on the benefits of small landowners and the poor. Now that there is little large-scale raw land left to develop in Seoul, a community-based small-scale land development method must be promoted. The present zoning system must be reevaluated. A more flexible land use allocation system must be developed, and this system must be integrated with transport planning and energy planning. Planners can also encourage the establishment of small-scale workshops in local communities. In relation to this recommendation, planners can discourage the development of urban fringe large-scale markets which induce unnecessary traffic by refusing planning permission. In order to achieve energy saving and energy efficiency, the present building regulations, urban design standards, and land use planning should be reexamined. In this case, transportation planning must be an integral part of urban land use planning.

In drawing up any development project, a top priority should be given to the consideration of the long-term future. Therefore the sequence of consideration can follow like this:

- 1) consideration of long-term future based on the continuum of time - past, present and future.
- 2) consideration of the urban environment in terms of life-support system, nature conservation and pollution reduction.
- 3) consideration of participation which secures community members' involvement in decision-making process, free information flow and positive government incentives.
- 4) consideration of social equity which includes equal opportunity, distributive justice and the rights of civil disobedience.
- 5) finally, consideration of self-reliance which promotes local trade, energy-saving and self-containment.

This order of priority looks awkward. It seems to be too idealistic to be practically implemented. But for building a sustainable urban society, it is a necessary course to follow however ideal it may seem. Nobody can build a hut by starting to make the roof first (here roof means economy in general). Even if economic aspects are important, it needs time to build a sustainable hut. It appears to be ideal but there seems to be no other way to achieve a sustainable urban future. This thesis does not suggest that a generally applicable blueprint for future urban planning is now ready to implement. All those arguments in this chapter are just the beginning of a debate in search of a new planning system. This debate requires contributions from wider areas of academic discipline.

## 8.6 CONCLUSION

This chapter does not insist that all the present planning system in Seoul is wrong, and thus discarded right now. On the contrary, some of the measures must be maintained although there are some criticisms of them. There is no doubt that the land use development and control practices reviewed in this chapter have contributed to the modernisation of Seoul in particular and South Korea in general. This chapter has emphasised the deficient aspects of the practices. To overcome these deficiencies, a step by step transformation of the planning system is now needed. This kind of approach is the essence of sustainable urban development.

However, issues surrounding city farming raise questions about the role of urban planning as principally regulating land use. The promotion of the activity requires a change towards more enabling and encouraging ways forward for the activities such as city farming to be possible. City farming is in a sense an informal plan by the community itself, which has been repressed under the orthodox planning system. The failure of local authorities to recognise the desirable aspects of city farming, while it is so prevalent and popular among the citizens all across Seoul, simply implies that the present planning system in Seoul has some deficiencies.

The concept of sustainable urban development requires a different priority to be given to the planning considerations. The top priority must be given to the element of future, then the elements of nature, participation, equity and finally to the element of self-reliance. All these elements are an integral part of the principles of sustainable urban development.

Environmental problems cannot be separated from social and economic problems. To tackle the environmental problems in a city, the socio-economic issues must be dealt with at the same time. In order to achieve this goal, political consensus, NGO's role, and government's positive incentives are all important. This integrated action can only secure the present and future generations' quality of life.

Carefully guided urban development can make cities better able to meet people's needs. An urban development based on self-reliance can help create diverse communities and promote smaller, more affordable housing. City farming is, in a sense, an informal plan prepared by the community itself, which has exclusively been reserved for elite planners or has continuously been repressed by orthodox planning. The next chapter concludes this thesis by summarising the results and findings of the case studies and presenting the limitations of this thesis.

## Notes

- 1 Featherstone (1991) uses the family of terms derived from the postmodern: modernity / postmodernity, modernisation / postmodernisation and modernism / postmodernism. Modernity is contrasted to the traditional order and implies the progressive economic and administrative rationalisation; postmodernity means an epochal shift from modernity. While postmodernisation seems to be parallel to post-Fordism, postmodernism is understood as a cultural phenomenon, as an exploration of the ambiguous and uncertain open-ended nature of reality. Boyne and Rattansi (1990) also distinguishes between postmodernism as a term that characterises a series of broadly aesthetic projects and postmodernity as a social, political and cultural configuration of which postmodernism is supposedly a constitutive element. For Giddens (1990), postmodernism refers to styles or movements within literature, painting, and architecture, but postmodernity means that the trajectory of social development is taking us away from the institutions of modernity towards a new and distinct type of social order. Therefore if the postmodern is considered as an urban phenomenon (see Lash 1990), the postmodern must be understood as postmodernity rather than postmodernism.
- 2 The rest five agenda are strategic planning, new settlement, land assembly and betterment, the changing countryside and Europe (Hall 1990 p7).
- 3 These are well documented in Zuckermann (1991)'s book, *End of the Road*.
- 4 These are well explained in Larr and Lane (1993 pp24-31).

# Chapter 9

## *Conclusion*

### 9.1 INTRODUCTION

The aims of this thesis were to find out the causal mechanism of city farming and to examine whether city farming conformed to the principles of sustainable urban development. Throughout, the thesis provided a set of theoretical frameworks on city farming and on how to understand the activity. The important questions raised in the thesis were not about patterns and processes of city farming but about the underlying structure and mechanism which caused the phenomenon. The perspective which directed the thesis was to criticise the modern urban planning system in South Korea, on the one hand, and to support the value of planning as a whole on the other. Therefore one of the implicit objectives of the thesis was to defend the validity of planning from the postmodern challenge and from the charges of planning inability in solving urban environmental problems. The author thus suggested that planners should become the architects of the "sustainable hut" for the urban future.

To achieve those aims and objectives, the thesis has followed a realist approach. After setting up the research methodology, the thesis has considered the conceptualisation of sustainable urban development. During the discussion, it produced models with which the hypotheses can be examined through the case studies. Then the descriptions of study area were provided for a clearer understanding of the conditions of the research before city farming in Seoul was

examined in the next chapter. After the causal mechanism of city farming was examined in Chapter 6, the existence of the elements of sustainable urban development in city farming was analysed in Chapter 7. In Chapter 8, the planning implications of research subject were discussed. This conclusion summarises the findings and reveals the limits of the thesis which require further research.

## 9.2 SUMMARY OF THE FINDINGS

The rapid growth of Seoul for the last 30 years represents the economic growth of South Korea as a whole. The transformation of the socio-economic structure of South Korea as well as Seoul can be easily identified in two ways: urbanisation and industrialisation. Although there are a variety of planning tools to regulate land use and development, they have largely been fragmented lacking discipline and efficiency. The objectives of planning in Seoul have been focused on a single proposition: economic development. All the social and economic resources as well as the political and administrative systems were mobilised to achieve the goal. In the meantime, the environmental problems have given the policy makers and planners in Seoul a lot of trouble, raising questions of what the seemingly successful economic growth achieved.

City farming was identified as a universal phenomenon, a natural way of urban life that stretched across cultures. However, the existence of city farmers as urban squatters has been rarely recognised at least in Seoul, South Korea. The scale and diversity of city farming in Seoul was underestimated by the city and Ku government. However, the number of city farmers in Seoul at present is considerable. There seemed to be quite different attitudes towards city farming ranging from hostility through ignorance to support. City farming will die out

altogether with the decrease of vacant land because, in most cases, the activity takes place on vacant land to which city farmers have no title at all, and on which their vegetables can be destroyed at any time if it is required for development. But the present amount of vacant land will remain unchanged in the foreseeable future, and the eagerness shown by the city farmers in Seoul to cultivate a small plot of unused land can not be simply ignored. To prevent the wasting of precious urban land and to remedy the faults of the land use planning system, city farming on vacant land needs to be encouraged.

As far as vacant land in Seoul is concerned, at least 5% of the area of Seoul was estimated to be vacant. The location of vacant land in Seoul was ubiquitous. Although the amount of vacant land in Seoul is not that much to worry about, there is no doubt that it is poorly managed. The thesis also identified some cases of disguised vacant land which was prevalent all over Seoul. Throughout the case studies, it was identified that government policy itself was one of the main causes of vacant land. The Land Readjustment Project was one of the main causes of land vacancy in Seoul. In the period 1960-1975, 55% of all the developable land of the present Seoul was developed by the implementation of LRPs. Including all the land developed by LRPs from 1937 onwards, 40% of the whole urbanised area of Seoul was developed by the method. The present vacant land in Seoul was created during the historical stage of urban physical growth. The central government together with the Seoul government initiated some housing and land policy measures which in the end triggered the increase of vacant land in Seoul. Planning and the land market have not worked properly to cope with this problem and landowners, in the meantime, have attempted to gain from land speculation.

City Farming in the thesis is just one of the broad spectrum of urban phenomena happening in Seoul. All over the world the countryside is being



"urbanised" while cities are being "ruralised". City farming is recognised as a universal phenomenon both in the West and the East and both in the North and the South. Even historically speaking, there is nothing new about city farming both in other cities of the world and in Seoul. It was revealed in Chapter 5 that a farming landscape had been a familiar scene of everyday life for all the citizens of Seoul during the Choseon dynasty. City farming sites in Seoul are at present an element of urban landscape that is spontaneous and unorganised, therefore not planned, and that has benefits for the community. Here is a gap for planners to fill by planning the unofficial open spaces to be used in socially beneficial ways. A sort of rural retreat must be an essential recreational need in the heart of the city. But if recent levels of environmental pollution cannot be reduced, a large number of existing city farming sites should not be allowed to be cultivated because of possible health hazards. In particular, roadsides and dry river beds are not suitable because there is a fear of air, water and soil pollution.

The thesis developed a social learning model on which the case study analyses were based in the search for a causal mechanism. The model identified city farmers as actors. They were learners who were problem solvers too. They developed city farming through the reality and practice learning process which was part of a mutual interaction. The problem of vacant urban land and the problem of the elderly were mitigated by the unexpected consequence of the city farmers' egoistic action. The causal mechanism of city farming was explained as a social learning process where it was an unintended consequence of actors' egoistic action under an unacknowledged condition triggered by unconscious motivations and helped by tacit skills.

It must be an illusion that vacant land produces nothing at all. On the contrary, vacant land as in the case of city farming, can produce both physical things

such as vegetables, crops and fruit, and social things such as the community, friendship, self-help and recreation. When land is considered only as a property asset, it seems to be hard to achieve sustainable development. But once the land is considered as an environmental resource as well as an economic resource, there are many possibilities for sustainable development, to which planners can contribute by managing and guiding the sound use of urban land for both the present and future generations.

Because the concept of sustainable urban development is a vague term such as freedom or justice, one of the most important things is to find out the conditions or principles rather than definition of the concept. Recently the concept has become useful for sound urban development of the developed as well as the developing countries. This thesis identified five basic elements of sustainable urban development and discussed the existence of the criteria of each element in the city farming activity on the three case sites in Seoul. The model of the "sustainable hut" showed how each element stood as an integral part of the concept of sustainable urban development. It emphasised that all the elements including its criteria were all interrelated. From this point of view, the concept of sustainable development is not so contradictory but rather systematic and convincing.

The thesis examined whether city farming on vacant land in Seoul conformed to the conditions of sustainable urban development. With slight differences among the three case study sites, the city farming activity on each case site showed that it conformed to the principles of sustainable urban development. But as shown in the analogical model of the "sustainable hut", the types of the "sustainable hut" were not perfect thus needing further improvement. Therefore the planners' role as architects to build the "sustainable hut" as near perfect as possible was emphasised.

As shown in the model of the "sustainable hut", the essence of the concept of sustainable urban development is in the priority of consideration. Conventionally, planning considerations for urban development projects or other activities start from socio-economic aspects to improve the quality of urban life. But the concept of sustainable urban development requires a different approach. Because development potentiality is limited by the environmental constraint and the two are interlocked, environmental considerations must be done before any development project is implemented. Moreover, the thesis argued that the consideration of the "future" must be prior to any other elements of sustainable urban development. Even the future cannot be considered as the opposite of the past but needs to be regarded as a continuum of time. Therefore the role of the elderly needs to be appreciated, the present generation's welfare must be secured and future generations' interest should not be compromised.

The environmental quality as described in the discussion of the element of "nature" is as significant as the "future" element. Life-support systems must be protected, nature conservation must be promoted and pollution levels in the cities must be reduced to achieve sustainable urban development. The two elements, future and nature stand as two pillars of the "sustainable hut". Furthermore, in the model of the "sustainable hut", the role of politics in terms of participation is emphasised. Even if all the future and nature elements are taken into consideration, the "sustainable hut" would collapse if there were no political consensus arrived at through participation. Only after that can the consideration of socio-economic aspects become plausible and viable. Thus the essence of sustainable urban development can be found in proclaiming that now it is time to dispose of the principle of economic rationality as the sole and final criterion at least in determining the extent and use of urban open space.

The dominant viewpoints take most of the recent environmental problems like the greenhouse effect, the ozone hole and acid rain, as global problems requiring local solutions. Sustainable development itself has its roots in the debates on strategic alternatives for the Third World development from a global perspective. But the term "the global" is abstract and detached from the everyday life of citizens. Most of the causes of recent environmental degradation can be located at the local level and only at the local level can a viable solution be found under, in some cases, global cooperation. That is the reason why the thesis has focused on the local level when considering sustainable development.

City farming provides both recreation and local employment, as well as improving the urban environment by increasing the proportion of open space. In general, city dwellers can grow some food on the limited area of land available to them. This should be encouraged, not just for self-sufficiency, but because it reminds the citizens of the fact that they are dependent on the countryside for food. At present, city farming in Seoul is in the informal sector which needs to be included in a formal, institutionalised system. In this process, local government can take a leading role as a mediator between city farmers and landowners. Through the city farming case studies based on the concept of sustainable urban development, this thesis showed how informal communities can take the initiative in promoting environmentally sound urban development, and how city farming can be explained theoretically.

The model of the "sustainable hut" which was considered in the case studies revealed that there were structural errors in the urban planning system, in the way development was implemented, and in the way planning was practised at least in Seoul, South Korea. There was no thoughtful consideration of the long-term future or environmental conservation which were fundamental to the

model of sustainable urban development. Only economic aspects have been considered without regard to social equity and political consensus let alone the future and nature aspects. The conventional system of implementing urban development must be changed in order to achieve sustainable urban development.

The failure of some policy measures shown in the case of city farming calls for a new approach, which will provide opportunities for the real meaning of development in all sectors of society including the marginalised groups. The process of achieving sustainable urban development is rather complex. However, as the model of the "sustainable hut" shows, it can be approached in a more systematic way. It is essential to focus on the community level based on the cultural, aesthetic background when implementing sustainable urban development.

City farming on vacant land seems to be one of the means by which technosphere and biosphere can be bound together. However, this thesis does not insist that a community produce enough vegetables to be consumed by all the neighbours for self-sufficiency. Neither is it advocated that city and countryside should be unified, or mixed up to produce a symbiotic relationship. The essence of the thesis is in the idea that all events surrounding city farming should be taken as a good opportunity for promoting the concept of sustainable urban development even if its presence reveals a symptom of the failure of modern urban planning at least in Seoul, South Korea.

The thesis has tried to reveal the hidden agenda in urban land use planning at least in Seoul, South Korea: the hidden people - city farmer; the hidden land - vacant urban land; and the hidden economic activity - city farming. Achievement of sustainable urban development seems to require to empower

the hidden part of each domain. They are hidden under the modernist and neo-classical economist approach to urban affairs, that is to say, only what can be counted into market economy should be the object of planning. Therefore the elderly, women, and children have been excluded simply because most of them are not active economic actors in South Korea; vacant land has been excluded and ignored because it is merely a remnant of ordinary land sold in the land market, but in fact vacant land is a co-product of local authorities and landowners as demonstrated in the case studies; city farmers like other informal sectors such as street vendors and volunteer workers are excluded and neglected in the planning system. Even though these hidden domains have long been neglected and in a sense oppressed, they are alive and working for a sounder society. What the three hidden domains share in common is their marginality. The point is that they have been marginalised in an unsustainable way

### **9.3 PLANNING FOR SUSTAINABLE URBAN DEVELOPMENT**

The rapid growth of Seoul during the last 3 decades is simply the product of continued economic growth initiated by the central government. It is also admitted that Seoul has contributed to the national economic growth serving as a bridgehead. As far as urban space is concerned, however, planners in Seoul seem to have addressed the wrong question during that period: how to develop urban land as quickly and efficiently as possible. Vacant urban land has thus been seen as a resource which lags behind in development competition, and should be developed sooner rather than later. The important objectives of Seoul plans have been how to build buildings as nice as the Empire State Building of the USA, and how to construct roads as broad as those of Los Angeles. Everything else has been secondary. But the right question must have been how to

distribute urban space amongst the citizens. Urban space is not there for elitist planners to develop according to the international style, but is there for the local people to use for the community. But now old conceptions of city and planning are beginning to change as the needs for a new urban planning system become more explicit.

Throughout the process of modernisation in this century, modern South Korea has been obsessed with the wonder of economic rationality. Moreover, there has always been a confusion between "is" and "ought". Even planning theory and practice implemented as forms of land and housing policies have been based on a sort of religious faith rather than philosophical reason: belief in forever growth, and in the efficiency as the final goal without regard to the quality of life of the citizens.

The causes of recent environmental problems in Seoul can be found not just in the failure of planning but also in the optimistic belief in the progressive economic growth. It now becomes clear, however, that there are environmental limits to economic growth, which even planners cannot overcome. Particularly at the local level, the planner's role is, therefore, not to overcome the ecological limitations but to contribute to the structural transformation of contemporary social economy through a new way of development, that is sustainable development. As far as planning is defined as an exercise of development, and sustainable development is an alternative to both modern development and postmodern challenge, there are many things for planners to do in this environmentally turbulent age. A variety of environmental groups in South Korea are now very active in public debates on such issues as public transportation, locations of new roads, and the quality of air and water. But what is urgently needed is for these debates to be organised and, thus, to have urban planners who are determined to take the values of nature as well as the

community into account in every planning decision, and to follow the principles of sustainable urban development.

According to the evaluation in this thesis, the Korean planning system has many deficiencies. As far as city farming is concerned, the promotion of city farming should have a key role in a sustainable urban planning in Seoul. The thesis concludes that modern planning system in South Korea has failed to take into consideration the social aspect of city farming, and suggests that the future planning system needs to promote activities or projects which conform to the principles of sustainable urban development. Although the modern planning system in South Korea failed to cope with the rapid land use change shown in the case studies, the thesis has argued that planners' role as an architect in building a "sustainable hut" has become more important than ever before in this age of environmental concerns.

## 9.4 FURTHER RESEARCH

Although there are a variety of types of city farming such as backyard farming, squatting farming, commercial farming and allotment farming, this thesis has focused on the squatting type of city farming. A broader research programme which includes the city farming on rooftops, balconies, and backyards must be followed to provide a more comprehensive picture of city farming. Therefore the thesis is limited in terms of the generalisation of its findings although the structure and mechanism suggested in the thesis can still be applied in their modified forms. On the other hand, because only large-scale city farming sites were selected for the research, other small-scale city farming sites, such as kitchen gardens, were excluded. Therefore research on small-scale city farming sites, such as dry riverbeds, roadsides and street corners, is also needed.



Then a further study on the relationship between all sorts of city farming activities and urban ecology must be followed. With no official survey published about this specific issue, it was hard to estimate the precise scale of city farming in Seoul. Therefore together with the study on the environmental aspects of city farming, a citywide survey of the scale of city farming and the amount of vacant land must be taken.

There must be a lot of income supplement types of city farming practised mostly by the poor in some slum areas and urban fringe areas in particular. These were not covered in the thesis. The focus of the thesis was on the leisure type of city farming. As far as city farming on vacant land is concerned, the leisure type is surely the dominant form of city farming in Seoul. There was some evidence that some city farmers sold their produce, but this thesis did not pay much attention to this aspect of city farming. The economic aspects of city farming must be fully covered in future research.

As far as the elements of sustainable urban development are concerned, arguably one of the most significant factors, namely "culture", was not addressed in this thesis. Culture was assumed as the ground in the analogy of the "sustainable hut". It implies that culture is implicitly a prerequisite for building the "sustainable hut". The reason why there was no discussion about culture is not because it is unimportant but because it is always there as a conditioning factor at the local level. Therefore one of the most important aspects of following research on this subject must be the relationship between city farming and its cultural implications.

A final word of caution is that the findings of this thesis cannot be applied to other cities without proper modification because every city is unique in its context and characteristics.

# Appendices

## Appendix A Semi-structured Interview Format

### A-1 Questions about Land Use for Each Case Site

Site: \_\_\_\_\_

- 
1. Lot number
  2. Area
  3. Land category
  4. Ownership
  5. Land price
  6. Zoning
  7. Roads and traffic
  8. Land use around the site
  9. Previous use
  10. Duration of vacancy
  11. Reasons for vacancy
  12. Future development plans
  13. Prospects of development
-

**A-2 Semi-structured Interview for Causal Mechanism**

Classification No:

Time:

Site:

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**General Information**

1. Area
  2. Kinds of vegetables being cultivated
  3. Attached facilities
  4. Stolen vegetables
  5. Tramping damage
  6. Methods of watering
- 

**Actor**

1. Sex
  2. Age
  3. Address
  4. Hometown
  5. Residence in Seoul
  6. Education
  7. Religion
-

### Practice Learning

Questions cover interviewees' personal, practical and technical experience and knowledge concerning city farming and what they learn from a leading agent or neighbouring city farmers.

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### Reality Learning

Questions cover interviewees' understanding of socio-economic conditions concerning city farming:

1. Reasons for cultivation;
  2. Opinions about the existence of vacant land;
  3. The idea of neighbourhood (or community);
  4. Economy-related questions;
  5. Any conflicts with local authorities;
  6. Relationships with landowners, planning officers, local government, neighbours, and their own families.
-

### A-3 Questions for Sustainable Urban Development

#### 1. Questions of Future

- i) Future generation: land vacancy and its implications for the future generations' interests.
- ii) Present security: how the rights of cultivation on the city farming sites are secured.
- iii) Elder's role: city farmers' average age and their role in relation to city farming.

#### 2. Questions of Nature

- i) Life-support system: previous land use; the present site conditions (paved or not); the kinds of vegetables and city farmers' farming methods.
- ii) Nature conservation: identification of wildlife on the site; environmental benefits of city farming.
- iii) Pollution reduction: use of agricultural chemicals and artificial fertilisers.

#### 3. Questions of Participation

- i) Community decision-making: identification of a community level decision making process; the relationships with their families and neighbours.
- ii) Community information: communications with the neighbours and other city farmers; local newspapers or other information sources concerning city farming.
- iii) Government incentive: whether there are any government incentives; and if there are some, what kinds of incentives these are (interviews with Dong and Ku officers are required).

#### 4. Questions of Equity

- i) Equal opportunity: whether there are hindrances to access to the site of vacant land as a common resource.
- ii) Distributive justice: effects of income distribution; production costs.
- iii) Civil disobedience: whether there has been any conflict with public organisations including local government and Dong Office over city farming on vacant land.

#### 5. Questions of Self-reliance

- i) Local trade: distribution of the harvested vegetables.
- ii) Energy saving: travel time and distance from home to city farming site; recycling of waste in relation to city farming; other energy saving aspects.
- iii) Self-containment: control of the proper number of city farmers on each site.

## Appendix B      Interview Schedule

### B-1 Interviews with City Farmers

#### B-1-1: Mok Dong Site

Case 1: Mrs Jeong	Time: pm. 2:00- 2:50, 13 June 1992
Case 2: Mr Lee	Time: pm 3:30 - 4:00, 17 June 1992
Case 3: Mrs Kwon	Time: am 10:20 - 10:50, 20 June 1992
Case 4: Mr Sohn	Time: am 10:50 - 11:15, 20 June 1992
Case 5: Mrs Cho	Time: am 11:15 - 12:00, 20 June 1992

#### B-1-2: Banpo Dong Site

Case 1: Mrs Park	Time: am 11:00 - 12:00, 15 June 1992
Case 2: Mr Lee	Time: pm 2:00 - 2:30, 15 June 1992
Case 3: Mrs Shin	Time: pm 3:30 - 4:00, 19 June 1992
Case 4: Mr Park	Time: pm 3:00 - 3:30, 21 June 1992
Case 5: Mrs Kim	Time: pm 6:30 - 7:00, 28 June 1992

#### B-1-3: Sangkye Dong Site

Case 1: Mr Kwon	Time: 8 June, 1992
Case 2: Mr Hong	Time: 8 June, 1992
Case 3: Mr Yoo	Time: 21 June, 1992
Case 4: Mrs Moon	Time: 7 July, 1992
Case 5: Mr Shin	Time: 7 July, 1992

## **B-2 Interviews with Public Officers**

### **B-2-1: Mok Dong Site**

Dong officer: an interview was held with an officer, who was in the second highest position at Mok 5 Dong Office at 11:00 - 11:30am on the 30th June 1992.

Yangchon Ku officers: first interview was done with an officer, who is involved in the Saemaul job-creating project, in the Department of Public Parks and Green Areas. After the interview, there was another one with a chief clerk in the Department of Urban Maintenance at Yangchon Ku Office. Time: 1:00 - 2:30pm on the 30th June 1992.

### **B-2-2: Banpo Dong Site**

Dong officer: an interview was held at Banpo 3 Dong Office at 10:00 - 10:40am on the 2nd July 1992.

Ku officers: interviews were held in the Department of Public Parks and Green Areas and the Department of Urban Management at 4:30 - 5:30pm on the 2nd July 1992.

### **B-2-3: Sangkye Dong Site**

Dong officer: an interview with the head of Sangkye 10 Dong Office was held at 1:30 - 2:10pm on the 7th July 1992.

Ku officers: an interview was held at the Section of Green Areas in the Department of Public Parks and Green Areas of Nowon Ku Office at 3:00 - 3:40pm on the 7th July 1992.



## Appendix C The Criteria of Empty Land

The criteria of empty land defined in the 1989 Building Lot Ownership Limitation Act are as follows:

- \* a building lot on which no building stands.
- \* a building lot on which no building stands, but is used as a business purpose in its empty land form: the cases are as follows:
  1. sports facilities such as tennis courts and golf driving ranges.
  2. land for car driving or repair schools and farming education schools.
  3. parking lots
  4. recreation facilities
  5. reserve troops training ground
  6. open-air storage yard or depository
  7. manufacturing factories for blocks, stone figures, and earthen tubes.
  8. shops selling bricks, concrete products, blocks, stone figures, earthen tubes, pottery, steel bars, nonferrous metals, building materials, landscape plants, flowers, and potted plants.
- \* a building lot on which building stands, but the building price is less than 10% of the land price.
- \* a building lot on which illegal building stands.
- \* a building lot on which building stands, but the building lot is so large in comparison with the building; the criteria in this case are:
  1. if a building lot is more than the area produced by the ground floor space of the building on the building lot multiplied by 3 to 7 according to the zoning regulations on the lot, then it is empty land;

2. firstly ground floor space of a building is multiplied by an appropriate building to land ratio permitted in the zone; secondly total floor space of the building is divided by an appropriate gross floor ratio and multiplied by 5; finally if the building lot is above the lesser of these two areas, the area of the difference between the building lot and the lesser of these two areas is empty land

\* but following cases are excluded from empty land:

1. compulsory purchase is imminent
2. roads
3. public places such as parks, sports complexes which are designated as urban planning facilities.
4. public facilities for central and local government such as research institutes, markets, and cemeteries.
5. a parking lot attached to a building, whose area is less than the standard area:

$$\text{standard area} = \text{total floor space} / 150 * 13.75 * 2$$

## **Appendix D Government Policies concerning the Control of the Seoul Metropolitan Area.**

Government Policies and Measures to Control the Growth of Seoul Metropolitan Areas.

1. Cabinet resolution to control the excessive growth of large cities (1964).
2. Establishment of the Presidential Advisory Committee on Policy Issues for the Capital Regions (1969).
3. Establishment of the First Comprehensive National Physical Development Plan: 1972-1981 (1971).
4. Designation of Green Belt around Seoul (1971).
5. A measure to restrict the establishment of new university departments in Seoul (1973).
6. Preparation of Population Dispersal Plan by the city of Seoul (1975).
7. Preparation of the Master Plan for Population Redistribution in Seoul Metropolitan Areas (1977).
8. Enactment of Industrial Distribution Act (1977).
9. Announcement of the Temporary Administrative Capital Construction Plan (1977).
10. A measure to relocate manufacturing factories outside of Seoul (1979).
11. Enactment of Growth Control and Management Plan for the Seoul metropolitan Areas (1982).

## Appendix E A Licence Agreement Form

This is a typical licence agreement granted by the Greater London Council to a local group to make use of a GLC-owned unused vacant site (in this case for a garden). No other legal procedures or documents are necessary (Cantell 1977 p50).

Dear

I have been advised by the Council's Director of Planning and Transportation that you wish to improve the appearance and make use of the above-mentioned site. Having considered your proposals I am, subject to approval of my Council's Committee, prepared to offer you a Licence to make temporary use of the land (shown by red verge on the attached plan) on the following terms:

- 1 The Licence to take effect from a date to be agreed at a fee of a peppercorn and thereafter to be determinable by either party giving one month's notice in writing to expire at any time.
- 2 The Land shall be used as a temporary open space or recreational area for members of the..... Association and for no other purpose.
- 3 The Licensees shall, upon commencement of the Licence, remove all rubbish from the site, remove or replace damaged fencing and paint all fencing still in serviceable condition and plant shrubs and grass seeds as necessary to enhance the appearance of the site. In consideration of these works being carried out to the Council's satisfaction, the Council will reimburse the Licensees the cost of the works up to a maximum sum of £.....
- 4 The Licensees shall not place on the land any building, structure or other erection whatsoever with the exception of garden seats.
- 5 The Licensees shall be entirely responsible for the maintenance of the land and surrounding fences and shall keep it in a tidy and safe condition and free from litter to the satisfaction of the Council. The Council reserves the right to terminate the Licence if the condition or management of the site is unsatisfactory.
- 6 The Licensees shall so use the land as not to cause any nuisance or annoyance to any nearby occupier or to the Council.

- 7 The Licensees shall not part with their interest in the Licence or any part thereof and shall grant no sub- licence other than so far as is necessary to permit members of the ..... Association and their families to use the land as permitted by paragraph 2 above.
- 8 The Licensees shall obtain at their own expense all consents necessary in connection with their use of the land and shall comply with all Acts of Parliament and all statutory requirements of the Local Authority in connection with such use. In particular the Licensees will be required to produce evidence of planning consent before the Licence can be granted.
- 9 The Licensees shall indemnify the Council against all claims howsoever arising out of their use of the land or the granting of the Licence, and shall occupy the land entirely at their own risk.
- 10 The Council will require the land for redevelopment in the future. In this connection the Council's Architect will probably require the use of part of the site for preliminary trial borings and other site investigations. Accordingly, you will be required to give up possession without compensation of any part or all of the land as and when required by the Council.

I should be grateful if you would confirm that you are prepared to accept the offer on this basis.

Yours faithfully,

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